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AUTHOR Atkinson, Marilyn; And Others
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ABSTRACT

The guide offers a compilation of teacher-developed career education materials which may be integrated with secondary level curriculum and, in some cases, complete units or course outlines are included. Suggested activities and ideas are presented for three subject areas: business, metrics, and special education. The business education section provides activity suggestions related to steps in applying for employment and a discussion of employee and customer relations, and includes role playing situations as well as teaching procedures and resource lists. The metrics section provides activity suggestions integrating metrics into art, economics, English, math, home economics, science, and social studies; student worksheets; charts; and a metrication resource list. The special education section offers a course of study for a vocational multi-occupations class including a discussion of objectives, scope, and content; a list of discussion topics and related and integrated learning activities; textbooks and references; and instructional aids. A 13-page list of suggested local field trip sites and guest speakers is included. (EC)

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CAREER EDUCATION

Learning with a Purpose

- **Business**
- **Metrics**
- **Special Education**
- **Field Trip Sites and Guest Speakers**

U.S. DEPARTMENT OF HEALTH,
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CAREER EDUCATION PROJECT
STATE FAIR COMMUNITY COLLEGE
1900 Clarendon Road
Sedalia, Mo. 65301

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The following is a list of the contributors and the school district each is from.

Pettis County

R-V Hughesville: Sarah Fricke
R-IV La Monte: Suzi Bybee
Siebert McDaniel
Kay Byers Sparks
R-VI Smithton: Nadine Moore
Ruth Ann Walk
R-VIII Green Ridge: Jack Chambers
#200 Sedalia: Jewell Fowler
John Meyer
Jinny O'Donnell
Jean Routszong
Selvin Royal
Skip Schulz
Rosalie Smith
Marjorie Uhr
Sacred Heart: Diane Morarity
Beth Phillips
Rick Schreck
Kathy Simones

Benton County

R-I Cole Camp: Becky Schnakenberg
William Smart
R-II Lincoln: Larry Huffman
R-IX Warsaw: Jim Armes
Alan Meyer
Terry Phillips
Darrell Schulz

Saline County

Marshall: Carl Collins
Faye Edde
Karen Hargrave
Lavinia Lile
Russ Whyte

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FOREWORD

Career education at the secondary level strives to develop the relationship between academic studies and life outside of school, to help each student to personally identify a desired life role, and to make possible the preparation necessary for fulfilling that life role.

There is no set "career education program" to be adopted by all school systems. Rather career education is a concept to be adapted to the needs of each community, each school system.

Nowhere in this guide or in any of the others in this secondary level series is there a definition of career education. So many definitions have been developed that any individual can search for--and find--the one that suits his/her purposes. The activities, ideas, and suggestions herein do reflect the concept as it has been understood and implemented by the contributors.

Our goal in preparing and compiling these materials is to provide an idea bank. You as an educator can select those suggestions that could be easily integrated into your curriculum and enhance its value for your students.

Different contributors have approached this goal with various methods. Briefly stated activity suggestions comprise the bulk of the material. However, in some instances, complete unit or course outlines are included.

Please browse through the materials to find ideas that might be integrated with your on-going curriculum. The volumes in the series and the areas covered in each are as follows:

Volume I--Art

English
Industrial Art
Physical Education
Science

Volume III--Foreign Language

French
German
Spanish

Volume II--Business

Metrics
Special Education

Volume IV--Home Economics

Volume V--Mathematics

Volume VI--Social Studies

Don't limit yourself to only one guide--you may find an idea from another discipline that you can use with only slight adjustments. We hope you enjoy the guide and would be happy to hear any comments you have on it.

Phyllis B. Stuerke
Secondary Specialist
Career Education Project
State Fair Community College
Sedalia, MO 65301

BUSINESS

Objective(s):

Students will learn what work they are presently suited for and know their beginning limits.

Procedure:

This unit requires 6-10 periods of 50 minutes each and is intended for use with grades 11 and 12.

Self-evaluation**Interests**

Identify your occupational interests.

Aptitudes & abilities

Identify your abilities.

Skills

Test your skills to find your highest level of proficiency.

Personality

Write out your most positive traits and your most negative traits pertaining to appearance, voice, and behavior.

Make a list of traits and mannerisms you find objectionable in others.

Responsibility**Health****Appearance**

Make a list of essentials for good grooming.

Resources and Materials:

(OVIS) Ohio Voc. Interest Survey
(GATB) General Aptitude Test Battery, Missouri Statewide Testing Service, Univ. of Missouri, Columbia, MO 65201

Evaluation:**Comments on use:**

Subject Area(s) Business

Unit(s) Steps in Applying for
Employment, p. 2

Objective(s):

Students will have a better knowledge of various occupational areas. They should learn that a good job choice is based on both your present skills and your future hopes.

Procedure:

Voice

List the important characteristics of good speech.
Plan a self-improvement program.

What to consider in choosing a job
Opportunity

Responsibilities

Security

Salary & expenses of job

Advancement possibilities

Alternatives

Availability of jobs that interest you

What education is required

What special skills are required

Suggested activities:

Write down the names of some jobs you think you might be interested in.

Resources and Materials:

Dictionary of Occupational
Titles

Career Guide for Demand Occupa-
tions

Occupational Outlook Handbook

The Occupational Guidance

Booklets by Finney Co.,

Minneapolis, MN 55246

Pamphlets on different occupa-
tions available at most employ-
ment agencies.

Outside speakers may be helpful
here.

Evaluation:

Comments on use:

Objective(s):

Procedure:

Pick out several that especially appeal to you.

Identify those occupations that best relate to your measured interests and abilities.

List a few of the jobs that you think you could succeed in.

Be able to identify their educational requirements and their skill requirements.

Make a list of similar jobs in related areas that perhaps do not require as much education or special skill.

Talk to some people in these or similar jobs and make an oral report to the class.

Resources and Materials:

Evaluation:

Comments on use:

Objective(s):

Students should learn some of the sources for finding job information.

Procedure:

Sources and ways to look for a job

Get a social security card.

If student does not already have a social security card, teacher should advise where to go to get one.

Collect personal information.

Write down all of your own personal information you will need in hunting for a job.

Personal information

Educational information including special skills

Work experience--even if only in school office or part-time

Names and addresses of people you could use for reference

Let it be known you are looking for employment and what kind--tell friends and relatives.

Practice by telling the class what type of a job you are looking for and what your qualifications are.

Former employers can help through their contacts within business circles.

Write a friendly letter to a former employer asking for his help.

Make personal application to a business in which you are interested.

Resources and Materials:

Local Social Security Office

Utilize school records

Evaluation:

Comments on use:

Objective(s):

Procedure:

Use directories (telephone, city and business) to locate possible sources and list them.

Newspapers

Read newspaper ads daily for employment opportunities, clip some ads out and analyze them.

Place your own ad in a newspaper

Write up an ad stating your qualifications clearly.

Employment agencies

Make a list of available employment agencies--separate by private and public agencies.

Unions

Investigate on your own to see if there is a union in your job field. If so, find out amount of their dues and if there is an apprenticeship period. Report this to your teacher.

Government personnel offices

Check at the government personnel office (or post office) and see if jobs are available and what dates will they be giving civil service tests. Bring this information to class.

School placement service

Check with the school counselor to see if he knows

Resources and Materials:

Newspapers

Teacher should advise the difference between private and public agencies.

Notices and brochures on civil service jobs and testing sites and dates.

School counselors

Evaluation:

Comments on use:

Objective(s):

Student should be able to compose and type a letter of application, a personal data sheet, and neatly fill in an application for employment form.

Procedure:

of any job openings. Leave your name and phone number with him for future inquiries about jobs.

Letters of inquiry

Compose and type in proper form a letter inquiring if a job is available.

Application by letter, with data sheet or application form

Application letter

Compose a letter of application in acceptable style and error free.

Data sheet (Resume)

Compose and type a personal data sheet with following minimum information:

Personal data

Educational information--skills, honors, leadership activities

Work experience

References

Application for employment blank

Fill in a blank neatly and completely.

Resources and Materials:

Sample letter supplied by teacher to learn proper form and approximate content.

Sample letter provided by teacher or taken from textbook, Century 21 Typewriting, Southwestern Publishing Co.

Several styles of data sheets provided by teacher so student can select style best suited to him/her.

Mimeographed forms supplied by teacher

Evaluation:

Teacher should evaluate ads.

Comments on use:

Objective(s):

Demonstrate competency in a job interview and complete employment test.

Procedure:

Employment test for skills

Review skills and take some trial employment tests.

Follow-up letter

Compose a follow-up letter after an imaginary interview.

Personal Interview

Check personal appearance.

Arrive on time.

Do not be impatient if you have to wait.

Greet interviewer with smile.

Sit only when asked to.

Let the interviewer take the initiative.

Answer all questions completely and briefly.

Have a resume available for reference.

Be positive in your remarks.

Speak well of former employers.

Watch for sign the interview is over.

Thank interviewer for time and leave promptly.

If you have to fill out a blank, write neatly or type neatly.

Be sincere and enthusiastic.

Call interviewer by name.

Be prepared to be tested on skills.

Resources and Materials:

Sample tests supplied by teacher

Sample letter supplied by teacher

Evaluation:

Comments on use:

Objective(s):

Procedure:

Try to learn something about the company you are applying to for a job.

Go over some sample interview questions.

List some questions that you might be asked about yourself and your job training and know the answers.

Team up with another student in class and ask each other key interview questions. Assume the roles of interviewer and interviewee, and then switch about.

Prepare a resume to take along to the interview.

Practice filling out sample application blank provided by teacher.

Review your skills before going for interview. Take some practice employment tests provided by your teacher.

Follow-up letter--Express appreciation for time and interest. Summarize qualifications and interest in position. Give name, address, and phone number.

Compose a follow-up letter thanking person for the interview. Teacher may provide some sample

Resources and Materials:

Textbook

Tape recorders

Sample forms from local firms can be mimeographed.

Evaluation:

Comments on use:

Objective(s):

Procedure:

letters to practice from.
Class should discuss importance of good personal appearance, and how to sit, stand, and walk properly.

Resources and Materials:

Evaluation:

Comments on use:

EMPLOYEE AND CUSTOMER RELATIONS

Prepared By

Mrs. Jinny C. O'Donnell

Smith-Cotton High School

Sedalia, Missouri

Prepared for

Senior High

and

Junior College

May 1975

EMPLOYEE AND CUSTOMER RELATIONS

Goals and Objectives

Goal: For the individual to be able to communicate and work with others

General

Objectives: To acquire communication skills, i.e., responding, initiating

To understand that criticism can be constructive and nonconstructive and the differences therein

To understand situations in which giving and/or taking criticism is necessary to achieve group goals

To realize how he/she reacts to criticism

Goal: For the student to comprehend his/her own obligation to mankind

General

Objectives: To understand the value of helping others

To develop respect for others

To develop loyalty to friends

To realize the value and dignity of each individual

To understand that interpersonal relationships influence the individual and the development of personality

To identify experiences which utilize interpersonal skills

To demonstrate the ability to initiate and maintain interpersonal relationships

EMPLOYEE AND CUSTOMER RELATIONS

Introduction

One area of importance in the business office which needs to be brought to the attention of the prospective office employee is the area of employee and customer relations. Students need to realize the necessity of getting along with people--in particular their fellow workers, employers, and the customers. It has been shown that many people lose their jobs because they can't get along with the other people they are supposed to be working with.

Although the basic business skills are of great importance (without them, a person couldn't get the job in the first place) public relations carries just as much of an impact on the total success of the employee. It is also the area most often ignored by those who train future office workers and by the workers themselves.

This unit of study is meant to acquaint the student with the importance of the skill of good employee and customer relations. Through role playing, videotape viewing, guest speakers, class discussions, handout materials, and film, it is hoped that the student will be able to deal more confidently and correctly with the situations in the business office which involve working with other people.

Due to the nature of the subject of the unit, it is difficult to measure the progress of the students' understanding of the problems involved and the acceptable ways of handling these problems. Although some written evaluation is used in this unit, the student is mostly evaluated by the teacher and other students through oral participation in class discussions.

It is suggested that this unit be used during the second semester, so as to allow ample time for the teacher and students to develop a comfortable working relationship.

EMPLOYEE AND CUSTOMER RELATIONS

Procedure for Presentation

Before the student will be able to demonstrate any ability to handle office problems dealing with employee and customer relations, steps should be taken to familiarize the student with the reality of and the solution to problems of a public relations nature in the office.

It is recommended that the unit be presented in the following order:

1. Show the film, Your Job: Fitting In, FILM CATALOG, 11th Edition, 1973, Special Services, The Division of Health of Missouri, Broadway State Office Building, Jefferson City, Missouri 65101.

The class should discuss the high points of the film and what they got out of it. This also might be a good time to move into the sharing of personal (student and teacher) experiences in the business office or other type of working relationship.

2. The student should be given the handout material (pp. 15-21) stating problem areas to be aware of in employee and customer relations in the business office and also hints towards handling these situations.
3. Videotapes should be shown at this point. They show different methods of handling the same situation. Neither way will be completely correct or incorrect. The students will be asked to compare the two situations, discussing the good and bad points of each, and how they feel they might handle the situations. These are callers in the business office and the receptionist handles these callers in different ways. The tapes present the following situations:
 - Customers and suppliers (familiar and unfamiliar)
 - Subordinates, peers, and supervisors
 - Family and personal friends
 - Problem callers(These videotapes are available on a loan basis. Contact Sue Nishikawa, Audiovisual Specialist, Career Education Project, State Fair Community College, Sedalia, MO 65301.)
4. Guest speakers (hopefully a boss one day and his/her secretary the next day) will discuss with the class their real experiences and problems in the office and how they deal with these everyday occurrences.
5. Now that the students are familiar with the area of employee and customer relations, role playing is recommended. It will work with the ideas of employee gossiping and jealousy and the handling of responsibility.

HANDOUT INFORMATION

EMPLOYEE AND CUSTOMER RELATIONS

As an office worker, you will be asked to perform in many ways. You will, of course, need to display competence in the use of your office skills, which may include dictation and transcription, filing, and the operation of the telephone and various office machines.

In addition to these office skills which you will be called upon to use, you will need to acquire skills in other areas. In order to succeed in any office work, you must get along with your employer, your fellow employees, and the public in general. You will be dealing with these people on an everyday basis. The manner in which you conduct yourself in your contacts with these people will determine somewhat the success with which you meet the demands of working with other people.

Working With Your Fellow Employees

When the same people are thrown into a working situation everyday and expected to "produce" for the company, conflicts of one type or another are sure to arise. It will require an enormous effort on your part to achieve a harmonious working relationship with the other employees in your office.

You may wonder what is involved in achieving a successful working relationship with the workers in your office. Personality is a large part of it. It affects what people think of you and also what they think of your boss. Personality is sometimes confused with superficial aspects of social appeal and behavior, such as charm, magnetism, or popularity. In the broadest sense, personality is something you are, not something that you have. It is the total interaction of you--physical, intellectual, and emotional--in

relationship to the society in which you live."¹ Your actions as well as your words play an important part in your relations with other people.

Before employees can work together cooperatively and productively, they must have certain personal needs satisfied. Each one of us needs to be secure, to be accepted, to be recognized, to contribute, and to be needed.²

Security. We must feel that our job is not in jeopardy. If our position with the company is secure, we will be free to concentrate on the demands of our work.

Acceptance. If our fellow office workers accept us as individuals and offer their friendship, we will be able to avoid the feelings of loneliness. Again, this will allow us to keep our minds on the job. If you are not accepted by others, you will be self-conscious and will not be able to function in a productive manner.

Recognition. Each of us wants to be recognized for our individual achievements. If others see our worth on a personal as well as professional basis, we will feel more self-satisfied. We will feel that we are worth something to someone.

Contribution and Need. We must feel that our work is necessary and that what we are doing is worthwhile. If we feel that our daily efforts are wasted motion, we won't be able to put much enthusiasm into what we produce.

• We all must be aware of these needs and make an effort to satisfy them. By looking at ourselves objectively and with a positive spirit, we will be able to truthfully assess our value as individuals.

¹Irene Place, Charles B. Hicks, and Edward E. Byers, "Personality and Human Relations," College Secretarial Procedures, McGraw-Hill Book Company, (1972), p. 23.

²Ibid., p. 27.

While actively attempting to satisfy our needs, we might also make an effort to improve certain traits which will aid us in our relationships with others; namely, personality traits. You must use your intelligence and good judgment when solving problems in the office. Your ability will improve with experience, of course. You must also display foresight. Try to look ahead to see if you can keep problems from developing. You could perhaps do something before they occur rather than solving them once they exist.

And while you're looking ahead, why not also use your initiative in solving those problems. You can be an extreme help to others if you take the initiative to get the job done or to help them out in some way. Consideration plays a big part here, too. Being empathetic, or putting yourself in the other person's place, can often help you in knowing how to handle a difficult situation. Ask yourself the question, "How would I want to be treated?" If you display a sincere effort to cooperate with others, they're likely to work with you in the same manner.

Are you easy to get along with? Do you usually have a smile or a frown on your face? Are you enthusiastic and optimistic, or do you usually display apathy and pessimism? Your attitude, towards others and your job, plays an important part in your happiness and other's happiness also. Try being positive-minded and see how you feel.

And, of course, a sense of humor can often pull you out of what appears to be a hopeless situation. Be able to laugh at yourself. We all make mistakes. If we learn from these mistakes, we can consider it a helpful experience.

You should consider yourself a member of a team, striving to achieve the same objectives. Perhaps the following considerations will help you.

to become a better team member.³

Disclosure of confidential information. As a secretary, you will work with confidential information on a daily basis. You must make a concerted effort to see that this information remains confidential. Don't embarrass yourself and your boss by discussing it with others.

Undertaking the peacemaker role. You will need to set an example for others to follow. If you make a habit of leaving the office early for lunch and at the end of the day, the chances are your fellow employees will follow your example. Always make an effort to be honest and encourage others to act accordingly. Avoiding the temptation to join in a "gossip session" and trying to keep your relations on a business basis will do much to enhance your success in working with others.

Assuming social responsibilities. A secretary may be called upon to perform social duties. This often happens when your boss is organizing a meeting and wants you to serve coffee. It's often the little things that make or break the successful secretary. You should help all new employees to feel comfortable in their new positions. This is one important way you can establish good relations among your fellow workers.

Getting Along With Your Boss

Many of the personality traits involved in working with your fellow employees are also involved in getting along with your boss. Your supervisor will be on the lookout for these personal qualities. He/she wants a secretary who is poised in handling many difficult situations, from tactfully telling the caller, "No, you cannot see Mr./Ms. Jones today," to getting that ten-page presentation ready by 1 p.m. so the boss will be prepared for the board meeting.

³Ibid., p. 51.

Let the boss establish the degree of formality in your relationship. Don't get too familiar. Be friendly, but respectful. Even if you're a clever person, don't feel you have to prove it to him/her. Have a positive attitude toward your boss. Try to overlook personal traits that might irritate you. If you begin to criticize your boss for leaving the office early to play golf, you're just making trouble for yourself. A lot of business is conducted on the golf course, and those luncheon dates can be very productive.

As a secretary, you will need to be neat in your work as well as in your personal appearance. You must remember that you and your work are both representatives of the company. You must be dependable. When you say you will call Mr. Smith and place the order for machine parts, you should follow through. Your boss is counting on it.

Try to be open to constructive criticism. If you make your boss feel guilty in correcting you, he/she will just rid himself/herself of that guilty feeling by terminating you. It is very important that you remain objective about your working relationship with your boss.

Try to get the overall picture of your boss. What are his/her goals and what can you do to help him/her achieve these goals? If you are able to handle details for him/her, you leave more time free for your boss to devote to decision-making. If your opinion is asked, give it, but only when it is asked. Remember . . . the boss makes the decisions.

While you're analyzing your boss, you might also check to see when he/she works best. Some executives like to dictate first thing in the morning while others prefer the afternoon. Notice how and when he/she wants appointments scheduled and if and when he/she allows interruptions. Some employers can be very particular. You should work this out with your particular employer, according to his/her personal preferences.

Here are some suggestions on managing your boss's appointments. You will find a desk calendar indispensable when scheduling appointments for your boss. You must remember to write all appointments down on this calendar, which you keep on your desk. Your boss will undoubtedly have a desk calendar or pocket memo of his/her own. It's imperative that you coordinate his/her calendar with yours. Your boss may very well make an appointment himself/herself and forget to tell you the caller is coming in. How embarrassed you'd be if you later greeted this caller and told him/her he/she didn't have an appointment. It is up to you to watch out for these details.

You want to record certain information as you schedule an appointment. Get the full and correctly spelled name of the person requesting the appointment. The telephone number and the company represented also prove helpful. You should inquire as to the purpose of the appointment and the probable duration of the meeting. You want to be sure to allow enough time for your boss and the caller to conduct all their business. Of course, the date and time are imperative. Your boss will find it helpful if you would prepare any preliminary information that may be needed for the appointment. Here's how you can really relieve your boss of details. It will really be appreciated, too.

Working With the Public

Once an appointment is scheduled and the caller arrives, it is your duty to greet the caller by name in a friendly, courteous manner. You should inform your boss the caller has arrived; and either introduce the caller to your boss (if it is an unfamiliar caller) or simply direct the caller to your boss's office (if it is a familiar customer, for example).

If an unscheduled caller requests or demands (and some do) to see your boss, politely obtain the same information you would if he/she were calling

for an appointment in the usual, businesslike manner. The caller may be able to speak with your boss, depending upon your boss's availability and wishes at that particular time. If the caller refuses to give you any information, you must refuse the privilege of speaking with your employer in as tactfully a way as possible. You must be able stand your ground. This type of situation will be very difficult, but you must persevere. You must not submit to the problem caller.

Frequently, your boss will receive callers who work within your same office. Peers and subordinates will most often be considered after the scheduled callers, especially if the caller is an important customer. Your boss's supervisor, however, must be treated a bit differently. This is an area where you must gain experience. If your boss's supervisor walks into your boss's office and shuts the door, you can pretty well assume that he/she doesn't want them to be disturbed. There are occasions, however, where the visit will be more relaxed. If the company's top customer comes in to see your boss, you must consider all aspects of the situation before you have him/her wait in the lobby. You might inquire as to your boss's preference in handling such matters. That would surely clear the air of any doubt.

Telephone calls will undoubtedly come in for your boss while he/she is in conference. Usually you will not want to disturb him/her for the call while he/she is meeting with someone else. If, however, he/she receives a telephone call of much importance, you may decide to take a note in to your boss. This is acceptable under certain circumstances--when someone is on the line who you know your boss will not want to miss. If your boss has a caller who gets a telephone call, you should ask to take a message. If they insist on speaking to the person, then interrupt them with information of the call. If the person needs privacy for the call, offer your desk or a nearby office which is vacant.

THE SECRETARY

AND

THE PUBLIC

VIDEOTAPE SITUATIONS

Introduction

The student will demonstrate understanding of employee and customer relations by discussing positive and negative points of the following videotaped situations:

Customers and suppliers (familiar and unfamiliar)

Subordinates, peers, and supervisors

Family and personal friends

Problem callers

Two tapings of the same problem area are presented. They are handled in two different ways. Both tapings contain good and bad points, which the students will hopefully notice and be prepared to compare and criticize.

Different interpretations to the tapes are encouraged. A discussion following each videotape will help to bring to the students' attention the right and wrong ways problems can be handled in the business office.

THE SECRETARY

AND

THE BOSS

THE BOSS-SECRETARY RELATIONSHIP

Introduction

The student will demonstrate understanding of the principles involved in the boss-secretary relationship by written examination.

In order to familiarize the students with the many aspects of the boss-secretary relationship, it is suggested that outside speakers be invited to speak to the class. It is hoped that both the boss and the secretary could visit with the class. In that way, both viewpoints could be introduced to the students.

Points of discussion to guide the speakers in their presentations are included in this unit. They should be used only as a starting point. Additions are encouraged and needed, especially if you see the need for discussion of a certain office problem in your classroom.

An informal discussion following the presentation by the speakers will allow the students to clarify any misunderstandings they may have. It is suggested that some kind of a preparatory discussion precede the speakers. The students should possess some preliminary understanding of the boss-secretary relationship so that they will be able to react to the speaker presentations.

The choice of speakers will depend on the ~~location~~ of the school and the business facilities available. A service organization would be a good source of speakers. Such organizations are usually anxious to do whatever they can to help their local patrons. A bank or local utility are two examples.

It might also be beneficial to the students to invite speakers from a medical, legal, or educational office if there is student interest in these areas. A list of businesses willing to participate in such activities is available to the schools participating in the Career Education Project in this

area. Project personnel can be contacted at State Fair Community College, where their offices are located.

A written examination should be given to evaluate what the students have gained from the speaker's presentation. The format of the examination will depend on what was discussed by the speaker and the class. It should include, however, the basic principles involved in the boss-secretary relationship which is presented in the unit handout material.

GUIDES FOR SPEAKER DISCUSSION

1. Loyalty to the employer; not divulging confidential information.
2. The degree of formality between employer and employee and how it is established.
3. How to establish a working relationship between employer and employee.
4. How to establish the procedure for conducting daily business, i.e., how and when employer likes to dictate letters, receive callers, etc.
5. The qualities the secretary should possess; such as initiative, foresight, etc.
6. How the secretary can demonstrate her initiative, foresight, and other qualities to her boss.
7. The qualities a secretary would like her boss to have.
8. How responsibility is delegated from the boss to the secretary.

THE SECRETARY

AND

FELLOW WORKERS

ROLE PLAYING OFFICE SITUATIONS

The student will demonstrate by role playing how he/she can confidently handle the following types of situations, which may arise in the business office:

- I. Do all employees carry their load of the responsibility; and, if not, how does one communicate these problems to others honestly and openly?
- II. Employee gossiping.
- III. Employee jealousy.

The class should first discuss the values involved in these types of situations. This unit contains guides for this discussion. It is recommended that the teacher and the students who have working experience offer their personal experiences as well. This will prepare the students for the role playing. Hopefully, it will help them to be a bit more comfortable while developing their situation dialogues.

The teacher can divide the class into groups and let the groups decide what situation they would like to role play. The teacher should encourage students to cover all three situations.

These three situations all occur in the same company office. The list of characters will familiarise the students with the office atmosphere involved. This should be discussed thoroughly before the role playing begins so that the students grasp the values involved.

The groups can then spend however much time is needed to plan their dialogue. The teacher should observe each group and guide them in the development of their dialogue.

Once the dialogues are prepared, each group should present their version of the answer to the problem. The rest of the class should be watchful of

each presentation so that they are prepared to evaluate each group. An evaluation guide is included here to aid the students and teacher in evaluating each group.

These role playing situations were developed for a class made up of female members only. Alterations would have to be made to include male students.

GUIDES FOR DISCUSSION

The teacher should keep the objectives of the unit in mind throughout the discussion. The following ideas may be used to guide the discussion of the values involved. The handout information will also be helpful. The best discussions, however, will no doubt come from relating personal experiences which members of the class have actually experienced. It would be good to analyze the problems and values involved in each situation.

1. The amount of responsibility which different workers can competently handle may differ among these different people.
2. Should employees discuss their differences of opinion openly or should they ignore the differences, especially in personality?
3. Accepting individual differences and having consideration for others' feelings.
4. Loyalty to friends and fellow workers.
5. Treating others the way you would like to be treated.
6. Accepting the fact that problems will occur in the office, but also being willing to be open-minded to see the other person's opinion on a certain matter.
7. Eliminate employee jealousy by acting professionally and trying to be satisfied with what you have and are producing for the company and yourself.

CHARACTERS OF ROLE-PLAYING SITUATIONS

Miss Williams is approximately fifty years old. She has worked for Benton Manufacturing, Inc., for her entire working career. She is very proud and possessive of her job and its responsibilities as secretary to the divisional sales manager. She is a very conservative woman and also very domestic-minded.

Miss Joyce is a young woman (college age) recently beginning her part-time employment for this same organization. Her addition to the staff totals five office employees, a relatively small office staff, and gentlemen supervisors of the firm. Miss Joyce is very outgoing and enjoys getting to know all of the office employees. She is very positive-minded and strives to treat all office problems in a professional way. She gets her work done, being careful to hold up her end of the office work.

Mrs. Simmons is approximately forty-five years of age and is a relatively new addition to the staff. She is needed to handle the new bookkeeping procedures resulting from a reorganization of the company branches. She, too, enjoys visiting with her fellow workers, but especially the gentlemen supervisors. Although she often complains about her heavy load of work, she does show herself to be an efficient worker and is a fine asset to the company.

Miss Johnson is a young woman, out of business school, who is also a bookkeeper. She is very friendly to all the organizations' employees and is liked by them all. She makes an effort to get along with everyone in the office. She tries to avoid uncomfortable situations by appeasing all her fellow workers. She, too, is a hard worker and handles her responsibilities well.

Situation I: Do all employees carry their load of the responsibility; and, if not, how could this problem be solved honestly and openly?

Directions: Set up the following role playing situation. Carry it through so that you fully illustrate the problem stated above. Show a definite solution to the difficult office situation.

Miss Williams is very busy with the preparation of a report for her supervisor. She has been diligently working on it for the better part of two hours so that it will be ready for Mr. Bennington for the afternoon board meeting. Mrs. Simmons has been visiting a lot during the morning hours. She is suddenly complaining about her heavy load of work that must be done by the end of the day and is asking for extra help. This bothers the other office workers, who have been working steadily on their assigned tasks all morning. They feel something should be said to Miss Simmons and that she should handle her own work. Miss Williams especially is upset over the matter because she feels that she has been especially busy on this particular day and hasn't found it necessary to complain at all.

Situation II: Should one enter into office gossip sessions; and, if not, how can an employee indicate, in a friendly way, that he/she really doesn't approve of such treatment of fellow workers?

Directions: Set up the following role playing situation. Carry it through so that you fully illustrate the problem stated above. Show a definite solution to the difficult office situation.

Mrs. Simmons has been divorced. During the past month, she has been especially friendly to a Mr. Matthews in the office. She goes out of her way to be noticed by him during working hours. All the other office workers are aware of this situation. Ms. Williams has been gossiping to Miss Johnson and Miss Joyce over the matter, saying how disgraceful it is for Mrs. Simmons to handle herself in that way in a business office. Miss Johnson has been appeasing Miss Williams by agreeing with her opinion of Mrs. Simmons and entering into the gossiping herself. Miss Joyce, feeling that it is nobody's business but Mrs. Simmons, wants to put a stop to the gossiping. She doesn't, however, want to alienate any of her fellow workers.

Situation III: There will undoubtedly be jealousy among employees in the business office. The question is--What is the cause of the jealousy and then how should that particular situation be handled?

Directions: Set up the following role playing situation. Carry it through so that you fully illustrate the problem stated above. Show a definite solution to the difficult office situation.

Benton Manufacturing, Inc., has been growing lately which, of course, does increase the amount of paper work for all the office employees. Mrs. Simmons has always complained of her heavy work load and is now complaining more than ever. None of the other workers are requesting extra help, but are gladly accepting the additional responsibilities with interest. Mrs. Simmons, however, is asking that the company hire another employee to help her with all of her added responsibilities. The company eventually hires the extra employee. The rest of the office workers are jealous over the seemingly special attention that Mrs. Simmons has received. The clerical supervisor, Mr. White, can see that the other ladies are jealous and must decide on the proper steps to follow in an attempt to reinstate a harmonious working atmosphere in the office.

QUESTIONS TO GUIDE EVALUATION OF ROLE PLAYING

1. Has the group presented the situation accurately as instructed on the direction sheet?
2. Was the presentation easy to follow and understand? Did the characters speak clearly?
3. Did the group produce a solution to the problem as they understood it? Was it a realistic solution? Why or why not?
4. In achieving their solution, did the group members keep in mind the needs of all the characters in their dialogue?
5. Was the solution to the problem complete?
6. Did the group show the use of personality traits such as initiative, consideration, cooperation, good judgment, etc., in some way during their presentation?
7. Did the group members handle their character roles in a tactful and poised manner--a manner acceptable in the business office? Why or why not? This refers to the manner of the character as the group has decided to portray him.

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METRICS

UNITED STATES METRIC POLICY

On 21 August 1974, the "Education Amendments of 1974" became Public Law 93-380, 93rd Congress, H. R. 69, Section 403 (a) (2) states:

"It is the policy of the United States to encourage educational agencies and institutions to prepare students to use the metric system of measurement with ease and facility as a part of the regular education program."

Although there has been plenty of time to prepare for the coming of metrics--the U. S. has been debating the issue since 1821 when the first government studies were made--the preparations for its arrival have not been orderly. In recent years Congress has considered numerous bills calling for a planned move to metrics. In 1972, the Senate actually passed a bill, but the House failed to act. The policy stated at the top of this page, however, is in effect.

Since conversion appears imminent, today's student should at the very least be aware of the metric system. For secondary students nearing the completion of formal education, more than awareness is necessary. Conversion will cause a great deal of confusion in daily living and in many occupations if these students have not learned to "think metric" so they will be ready to "live metric."

The following activities and materials have been included as a special section in this guide, including activities relating to various subject matter areas, to encourage the study of the metric system. A thank you is extended to Mrs. Rowena Ruffin, mathematics teacher at Green Ridge, for sharing the information and materials she has gathered, which was used as a nucleus for developing this section.

The suggested approach to use in teaching the metric system is to first help students gain an understanding of metric amounts--then work with the basic units until it becomes second nature to use them. All teachers can help students think in metrics. For example, a teacher can ask for a two-centimeter margin rather than a one-inch margin on assignments.

The customary system can be used to help gain an understanding of the basic meter units when appropriate:

Examples:

Meter: little longer than a yardstick
Millimeter: diameter of a paper clip wire
Centimeter: width of a paper clip
Kilometer: a little more than a half mile
Hectare: approximately 2½ acres
Gram: about the weight of a paper clip
Kilogram: slightly heavier than two pounds
Metric ton: add 200 lbs. to a ton
Liter: little bit more than a quart
Milliliter: five make a teaspoonful

However, don't let students rely on the present system and conversion. Only after students fully understand metrics, move to conversion, which is, of course, a necessary skill during a national conversion.

Various charts comparing the customary and metric systems are included in this section. Following the charts are activity suggestions for use in art, economics, English, mathematics, home economics, science, and driver education classes. Also included are some sample student worksheets. At the end of the section is a Matrication Resource List including a bibliography, a list of addresses from which metric materials can be obtained, and a listing of some companies that supply metric materials.

Materials needed:

Meter sticks
Metric rulers
Metric tape measures
Clear plastic area grids
Counterbalance scales
Set of metric weights: 1 gram to 1 kilogram
Calibrated beakers, flasks, bottles
Set of blocks with metric dimensions
Celsius thermometer
Charts and posters showing metric units, symbols and relationships

Desirable though not essential:

Trundle wheel
Calipers
Metric height measure
Hook spring balance
Platform scales
Films and filmstrips on metric system
Duplication masters
Metric activity cards
Metric multi-media kits

Suggestions for guest speakers:

Photographer
Person who has traveled or lived in foreign countries to discuss
problems due to not knowing metric system
Foreign car mechanics
Pharmacist
Medical and dental personnel
Economics teacher
Physics teacher
Research scientist
Foreign exchange student who could relate problems with our system of
measurements
Science teacher

METRIC EQUIVALENTS
AS THEY APPLY TO YOU

Height
(1 m. = 3' 3.4")
(1 ft. = 0.3 m.)

Weight
(1 kg. = 2.2 lb.)
(1 lb. = 0.45 kg)

Temp.
Celsius
Fahrenheit

<u>m</u>	<u>ft. in.</u>	<u>kg</u>	<u>lb</u>	<u>°C</u>	<u>°F</u>
1.50	4' 11"	45	99	-40	-40
1.52	5' 0"	48	106	-30	-22
1.55	5' 1"	50	110	-20	- 4
1.58	5' 2"	52	115	-10	+14
1.62	5' 4"	54	119	- 5	+23
1.65	5' 5"	56	123	- 0	+32
1.68	5' 6"	58	128	+ 5	+41
1.71	5' 7"	60	132	+10	+50
1.74	5' 8"	62	137	+15	+59
1.77	5' 10"	64	141	+20	+69
1.80	5' 11"	66	146	+25	+77
1.83	6' 0"	68	150	+30	+86
1.86	6' 1"	70	154	+35	+95
1.89	6' 2"	75	165	+37	+98.6
1.92	6' 4"	80	176	+40	+105
1.95	6' 5"	85	187	+45	+113
1.98	6' 6"	90	198	100+	+212
2.00	6' 7"	95	209		
		100	220		
		110	244		

TERMS FROM METRIC AND CUSTOMARY SYSTEMS

Although conversion from customary to metric is not the advocated method for teaching the metric system, this chart may be useful as a quick reference.

Units to be Measured	Customary System	Metric System
length	inch foot yard mile	millimeter centimeter meter kilometer
weight	ounce pound ton	gram kilogram megagram= tonne
volume	ounce cup pint quart gallon	cubic centimeter= milliliter cubic decimeter= liter cubic meter
time	second minute hour day	second minute hour day
temperature	degree Fahrenheit	degree Celsius
speed	mile per hour	kilometer per hour

Comparing the Most Common Measurement Units

Approximate conversions from customary to metric and vice versa.

	When you know:	You can find:	If you multiply by:
LENGTH	inches	millimeters	25
	feet	centimeters	30
	yards	meters	0.9
	miles	kilometers	1.6
	millimeters	inches	0.04
	centimeters	inches	0.4
	meters	yards	1.1
	kilometers	miles	0.6
AREA	sq. inches	sq. centimeters	6.5
	sq. feet	sq. meters	0.09
	sq. yards	sq. meters	0.8
	sq. miles	sq. kilometers	2.6
	acres	sq. hectometers (hectares)	0.4
	sq. centimeters	sq. inches	0.16
	sq. meters	sq. yards	1.2
	sq. kilometers	sq. miles	0.4
	sq. hectometers (hectares)	acres	2.5
MASS	ounces	grams	28
	pounds	kilograms	0.45
	short tons	megagrams (metric tons)	0.9
	grams	ounces	0.035
	kilograms	pounds	2.2
	megagrams (metric tons)	short tons	1.1
LIQUID VOLUME	ounces	milliliters	30
	pints	liters	0.47
	quarts	liters	0.95
	gallons	liters	3.8
	milliliters	ounces	0.034
	liters	pints	2.1
	liters	quarts	1.06
	liters	gallons	0.26
TEMPER- ATURE	degrees Fahrenheit	degrees Celsius	5/9 (after subtracting 32)
	degrees Celsius	degrees Fahrenheit	9/5 (then add 32)

APPROXIMATE CONVERSIONS

To Metric Measures

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.6	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lbs)	0.9	tonnes	t
VOLUME				
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

APPROXIMATE CONVERSIONS

From Metric Measures

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.5	acres	
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F

T A B L E O F C O N V E R S I O N

Yards to Meters	Multiply Yards by .914 or Divide Yards by 1.093	Meters to Yards	Multiply Meters by 1.093 or Divide Meters by .914
Inches to Centimeters	Multiply Inches by 2.54 or Divide Inches by .394	Centimeters to Inches	Multiply Centimeters by .394 or Divide Centimeters by 2.54
Miles to Kilometers	Multiply Miles by 1.609 or Divide Miles by .621	Kilometers to Miles	Multiply Kilometers by .621 or Divide Kilometers by 1.609
Ounces to Grams	Multiply Ounces by 28.35 or Divide Ounces by .035	Grams to Ounces	Multiply Grams by .035 or Divide Grams by 28.35
Pounds to Kilograms	Multiply Pounds by 2.205 or Divide Pounds by .454	Kilograms to Pounds	Multiply Kilograms by 2.205 or Divide Kilograms by .45
Quarts to Liters	Multiply Quarts by .946 or Divide Quarts by 1.057	Liters to Quarts	Multiply Liters by 1.057 or Divide Liters by .946
Gallons to Liters	Multiply Gallons by 3.785 or Divide Gallons by .264	Liters to Gallons	Multiply Liters by .264 or Divide Liters by 3.785

Subject Area(s) Art

Unit(s) Matrication

Objective(s):

Student will relate knowledge of metrication to art.

Procedure:

The following could be done in conjunction with the study of metrication.

Art students interested in cartooning as a career could illustrate the humorous aspects of metric conversion (examples on pp. 48-51).

Art students could make a mural-type poster or painting depicting the history of weights and measure--or showing measuring units and devices through the ages.

Art students could design posters and sample labels in dual dimensions which would be helpful to the public during a transition period between the customary and metric systems.

Resources and Materials:

See Metrication Resource List, p.101.

Art materials used

Evaluation:

Could evaluate accuracy of information, artistic quality.

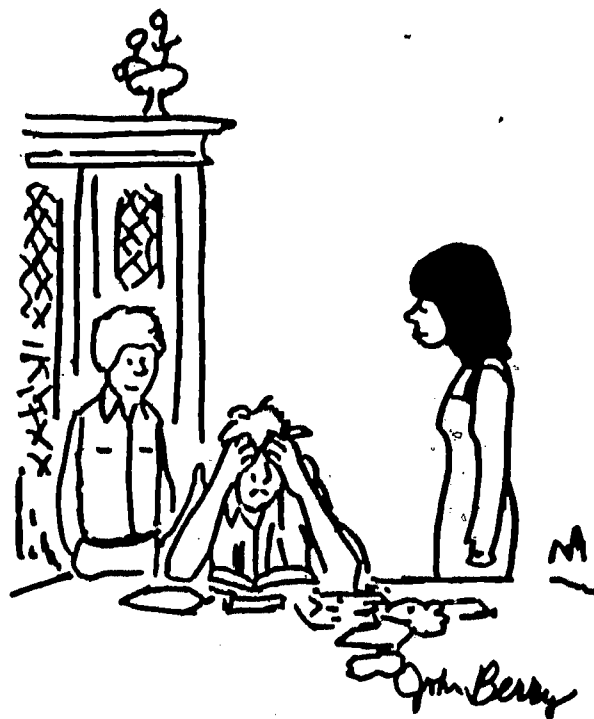
Comments on use:

Good method to relate subject areas--good way to relate to careers.



"92 - 56 - 97... metric system."

BERRY'S WORLD



"I can't even figure out these seventh grade arithmetic story problems. What'd going to happen if we go to the metric system?"



Subject Area(s) Any

Unit(s) Metricalion

Objective(s):

The student will become aware that conversion is already a part of present day life.

Procedure:

Have students "investigate" their own homes looking for evidence of the metric system. Sure places to look would be the kitchen cupboards to find items marked in pounds and ounces as well as grams, the medicine chest (The U.S. pharmaceutical industry made the changeover to metrics more than 15 years ago--with little fuss--and metric measures are standard in science and medicine.), and the sewing room--patterns and fabric yardage charts are marked in meters as well as yards and inches. You might mention that probably some parts on their bike are metric, even if it's from an American firm such as Schwinn. Also, foreign-made cars are, of course, built on metric, but several American-made cars also contain metric components. Ford is building metric engines for its Pinto and Mustang II, for example.

Compile a list of such items.

Resources and Materials:

Students will find items and articles, but it might be helpful to have some materials to start the ball rolling. Students could bring in labels from cans, etc., for a bulletin board or classroom display.

Evaluation:

This activity would be used to help students become aware of the fact that there are many indications of the necessity for learning the metric system.

Comments on use:

You might also have students bring articles from newspapers and magazines. Facts from other states might also be interesting. For example, Ohio has begun erecting road signs showing distances in both miles and kilometers. Students might want to check if own state is doing the same. Also, public schools in Maryland and California are committed to converting to the metric system soon. By 1976, California expects that all math and science textbooks will contain nothing but metric terms.

Subject Area(s) Art

Unit(s) Metrication

Objective(s):

The student will have practical experience working with the metric system in relation to art.

Procedure:

Have student:

Prepare a commercial art layout in metrics

Make a drawing showing proportion and perspective in metrics

Design a mold in metrics

Prepare a template in metrics

Design a piece of furniture giving all dimensions in the metric system

Do a mechanical drawing exercise using metric dimensions

Resources and Materials:

Background information on the metric system. See Metrication Resource List on p. 101.

Art materials as needed.

Evaluation:

Can evaluate artistic quality and accuracy of metric measurements involved.

Comments on use:

Objective(s):

Students will recognize the need for a well-planned transition from the customary to the metric system of measurement.

Procedure:

Have student investigate and outline the short and long-term effects of metric conversion on:

- prices
- job opportunities and training
- big businesses
- small businesses
- inflation
- government operations
- supply and demand
- labor
- consumers

Could develop a bulletin board display with newspaper articles and other materials relating to each of these areas.

Areas to consider:

- Weighing equipment
- Prepackaged food
- Items weighed in store
- Recalculation of cost of items in metric quantities
- Advertisements in metric terms
- Cost of new equipment--who pays?--employer? employee?
- Retraining of employees
- Labels
- Etc.

Resources and Materials:

Current newspaper and magazine articles
Encyclopedias
Also see Metrication Resource List, p. 101.

Evaluation:

Students would be evaluated on the thoroughness of their investigations.

Comments on use:

Objective(s):

Students will realize how converting to the metric system can affect language used in daily situations.

Procedure:

Quotes and sayings involving units of measurement can help students to learn the metric system. A list of examples is on the next page.

You might write the sayings with general equivalents and have the students figure out the saying to stimulate interest.

You might give the saying and have the students convert measurements to metric units, either generalized or in specific amounts.

If you use general equivalents, have students determine which of the sayings are no longer true.

To get the students more involved, give one or two examples (possibly as a bulletin board idea) and then let the students find and convert as many as possible.

Resources and Materials:

"New Measures for Old Quotes,"
p. 56.

Evaluation:

This activity can be used to stimulate interest, or it can be used and graded according to correct substitutions in metric terms by students.

Comments on use:

NEW MEASURES FOR OLD QUOTES

Some of the following quotes could be used with general equivalents in metric terms or specific equivalents. When this is the case, both are given.

1. I'd walk a kilometer for a Camel. (1.6 kilometers)
2. Give him a centimeter and he'll take a kilometer. (2.5 centimeters or 25 millimeters and 1.6 kilometers)
3. She talks a kilometer a minute. (1.6 kilometers)
4. A liter's a kilogram the world around. (half liter, and .45 of a kilogram)
5. All wool and a meter wide. (.9 meters)
6. A miss is as good as a kilometer. (1.6 kilometers)
7. There was a crooked man, and he walked a crooked kilometer. (1.6 kilometers)
8. Penny wise and kilogram foolish. (.45 kilograms)
9. A gram of prevention is worth a kilogram of cure. (28.4 grams and 45.4 kilograms)
10. I wouldn't touch that with a 3-meter pole. (3.04 meters)
11. Don't hide your light under a 35-liter basket.
12. The Texan was wearing a 38-liter hat.
13. He's .009 cubic meters of trouble.
14. He's a 44.4 kilogram weakling.

Subject Area(s) English

Unit(s) Metricalion

Objective(s):

The student will use metric terms and relate these to language usage.

Procedure:

Have students compile a glossary of metric terms for a person working with metrics for the first time.

Have students find references to weights and measures in literary works--can discuss implications of converting as related to literature.

Students could write articles for school or local newspaper on the metric system.

Have students collect articles on the metric system as examples. Two are given on the following pages.

Resources and Materials:

See Metricalion Resource List, p. 101.

Evaluation:

Each activity would be shared, then evaluated separately.

Comments on use:

"Metric Age Just Around The Corner"*

Chicago--M-Day is closer than you think for the United States.

M-Day is what the British call Metrication Day--the day the government says everyone must stop thinking in terms of feet, pounds and Fahrenheit and start working with meters, grams and Centigrade.

Two hundred transportation engineers meeting recently in Chicago were told that M-Day is fast approaching.

Sometime this fall shoppers in Phoenix, Minneapolis and St. Paul will buy 7-Up in the handy 500-milliliter size or the giant 1-liter container.

Already motorists who drive into a Sunoco station in Willo Grove, Pa., are buying gas at 13.9 cents a liter. And motorists who buy a 1975 Ford Pinto or Mustang II must have metric wrenches to work on their American-made car.

Sister Adele Marie Rothan, assistant professor of mathematics at Fontbonne College, St. Louis, outlined what she sees as advantages to consumers in the approaching world of S. I.--short for Le Systeme International d'Unites, the International System of Units.

The most basic advantage, she said, is that the United States will be able to exist in a world already 92 percent committed to the metric system. Besides the United States, the only countries not committed to the metric system are Brunei, Burma, Liberia, the Yemen Arab Republic and the Yemen People's Democratic Republic.

Sister Rothan said many educators believe conversion to the metric system can eliminate two years of schoolwork for children who no longer will have to wrestle with fractions and decimal equivalents.

She also believes it will be easier for a shopper in a supermarket to quickly calculate comparative prices.

Experience in countries such as Australia and India, which recently have converted to the metric system, shows that American cooks probably will keep a modified system of measuring with a 100-milliliter cup rather than weighing all ingredients in grams as European cooks do.

*Chicago Sun-Times

"U. S. Taking Plunge to Metrics"*

Washington (AP)—Amid early signs that many Americans will resist changing pounds to kilograms, quarts to liters, and miles to kilometers, the federal government is about to commit the United States to going metric.

Metric, which measures distance, weight, temperature and volume in multiples of 10, is coming into widespread use on the heels of a new conversion law expected to clear Congress soon.

Among changes in the works or already occurring in federal agencies and in the private sector:

*The Weather Service is ready with plans to list temperatures in Celsius (or Centigrade), the replacement for the Fahrenheit scale. Shortly thereafter television weathermen will be reporting snow depth in centimeters and wind speed in kilometers an hour.

*The federal transportation department is encouraging metric road signs in several states including Ohio, Alabama, Arizona, California, Florida, Maryland, Michigan, Minnesota, New York, Pennsylvania, Virginia, Vermont and Washington.

*A major soft drink manufacturer (Seven-Up) is selling its product exclusively in liter and half-liter bottles in Pensacola, Fla., and Minneapolis-St. Paul.

*The Treasury Department is requiring that all wine bottled in the United States be sold in metric containers by Jan. 1, 1979.

*The National Park Service is converting its signs and literature to metric units.

*General Motors Corporation, U. S. Steel Corporation and several other big manufacturers are converting parts of their assembly lines to metric measurements.

*The Sun Oil Corporation has experimented with gas pumps which ring up liters instead of gallons.

*Many schools are routinely teaching metric to elementary students.

*Metric and customary units are used to mark home run distances in River Front Stadium, home of the Cincinnati Reds baseball team. Metric advocates are quick to say, however, that after conversion, football fields will remain at 100 yards, and most other sports measurements now in customary units will stay that way.

But there are labor leaders, small businessmen and householders who see no need for any changeover during this century.

"There will be massive resistance," predicts Thomas A. Hannigan of the International Brotherhood of Electrical Workers. "What we have here is engineers and scientists trying to make an important social and economic change. They haven't the faintest idea what the changes will do or what they will mean."

Hannigan said skilled workers will lose jobs unless they can learn the metric system rapidly.

The labor leader also worries that many workers will be forced to make expensive purchases of new metric tools before their old ones wear out.

Metric supporters argue that the traditional English system is cumbersome and long overdue for the statistical scrap heap. For example, multiplying in 10s is much simpler than in half- or quarter-inches, they say.

For more than five years there have been moves in Congress for a law calling for a conversion which already had occurred within many corporations, especially those that do heavy overseas business.

Big companies like General Motors find it costly to produce one set of goods measured and advertised in feet and pounds or other traditional measures for U. S. consumption, while selling their goods overseas in metric. Government officials are quick to acknowledge that U. S. status as the only industrialized nation in the world not to commit itself to conversion is the biggest reason for the push toward metric in Congress.

Until this year, the opposition of labor unions and small business interests had blocked passage of a conversion law. When a House subcommittee dropped a 10-year conversion goal and softened language in the 1975 bill, passage through both the House and Senate became a certainty.

Interviews with metric specialists on Capitol Hill and in and out of the executive branch indicate a conversion bill is sure to be signed by President Ford before the first centimeter of snow falls this winter.

Metric supporters note that many newspapers, including the Washington Post, have begun voluntarily carrying some side by side Celsius and Fahrenheit temperatures. The Kansas City Star and The Times carry a conversion table illustrated by a thermometer. A Washington TV weatherman broadcasts in both Fahrenheit and Celsius.

Proponents also point out that Canada, now in the midst of its own conversion, is distributing weather information exclusively in Celsius. The U. S. Weather Service picks up the reports without changing to traditional units.

*The Kansas City Star, July 13, 1975

Subject Area(s) English

Unit(s) Metrication

Objective(s):

The student will learn the meanings of the prefixes used in the metric system by relating them to other words with similar prefixes.

The student will increase understanding of prefixes and increase vocabulary.

Procedure:

Work with students to develop a list of every day words that have prefixes similar to the names of metric units.

Examples: centennial
decade
million

Resources and Materials:

Dictionaries--an unabridged dictionary should be available to students enthusiastic about finding additional words.

Evaluation:

A quiz could be given over some of the words on the list compiled. Have students include numerical aspect in definitions.

Comments on use:

Objective(s):

Students will become aware of effect of converting to the metric system on everyone in relation to clothing sizes.

Procedure:

The charts of clothing sizes on the next page could be enlarged for the classroom. Students could work up individual size charts in metrics.

Notes:

1. Junior dress sizes aren't included on the chart and would have to be computed.
2. The number listed for shoe sizes indicated millimeters in length. For width, a second number measured in millimeters would be given.
3. Body and clothing sizes are measured in centimeters.

Resources and Materials:

Chart on next page.

Patterns would also be good resources since sizes and fabric required is listed both in customary and metric measurement.

Evaluation:

Check individual size charts for accuracy.

Comments on use:

This activity could be done in conjunction with construction or with a unit on careers in the fashion industry--either way would point out the necessity for knowledge of the metric system.

CLOTHING SIZES

WOMEN

U.S. Size		Metric Size
21	Hats	53
22		56
23		58
24		61
24 1/2		62
10	Dresses	38
12		40
14		42
16		44
18		46
20		48
8	Stockings	0
9		2
10		4
11		6
4	Shoes	34
5		35
6		36
7		38
8		38.5
9		40
10		41

MEN

U.S. Size		Metric Size
6 1/2	Hats	52
6 3/4		54
7		56
7 1/4		58
7 1/2		60
13	Shirts	33
14		35
15		37
16		40
17		42
9	Socks	23
10		25.5
11		28
11 1/2		29.25
12		30.5
6	Shoes	38
7		40
8		41
9		43
10		44
11		45
12		46

Objective(s):

The student will demonstrate ability to work with metric units and the metric system.

Procedure:

Suggestions for individual or small group activities:

Compute fabric requirements for article of clothing, etc., in metric units.
Take body measurements in metric units.
Research how clothing is sized under the metric system.
Take dimensions of a room, windows, doors, etc., in metric units.
Determine temperature of room, water, refrigerator, freezer, oven, etc. in Celsius degrees.

The following information might help students understand the Celsius scale better.

Resources and Materials:

Metric measurement materials

Resource materials

	FAHRENHEIT SCALE F	CELSIUS SCALE C
Body Temperature	98.6 F	37 C
Comfortable Room Temperature	68 F	20 C
Boiling Point of Water	212 F	100 C
Freezing Point of Water	32 F	0 C

Evaluation:

Results of each activity would be shared, then evaluated separately.

Comments on use:

Subject Area(s) Home Economics

Unit(s) Metrication

Objective(s):

The student will know common units of measurement in the metric system.

The student will understand an advantage of complete conversion to the metric system.

Procedure:

Conduct a supermarket survey to find out:

1. What products have labels in metric units exclusively?
2. What products are most frequently dual-labeled?
3. What products are not metrically labeled?
4. What value metric labeling is to the average consumer at this time?

Also have students determine the value of the metric system to the consumer as conversion progresses.

Resources and Materials:

If an entire class is to work on this survey, arrangements should be made. Either have students go to various supermarkets or make arrangements with the store manager if the whole class is going.

Evaluation:

Students should realize the ease of computing cost per unit, etc., when using the metric system as opposed to the customary system.

Comments on use:

Objective(s):

Students will have experience preparing a recipe using the metric system.

Procedure:

Convert a recipe to metrics.

Design measuring devices in metrics for recipes.

Prepare recipe.

Students could use the "kilogram" cake recipe on the next page first before attempting to convert one on their own.

Resources and Materials:

Conversion chart

Set of metric measuring devices to use as basis for development of more devices.

Containers, etc., to use in developing devices.
Example: A measuring cup or any clear container could be marked with masking tape.

Foreign cookbooks would also be good resources to start with.

Evaluation:

Check the accuracy of conversion before preparing recipe.

Comments on use:

This activity might turn students off if it's their first experience with the metric system. In other words, they should already be acquainted with the metric system before trying to convert from the customary to the metric system.

"Kilogram" Cake

Grease and line with paper: a 24 by 12 by 8 centimeter loaf pan.

Sift together into a bowl:

$\frac{1}{2}$ kilogram flour
 $\frac{1}{2}$ kilogram sugar
10 grams baking powder
5 grams salt

Add:

$\frac{1}{8}$ kilogram soft shortening
5 milliliters vanilla
5 egg yolks
110 milliliters milk

Beat two minutes then add:
55 milliliters of milk

Mix together. Spoon batter into prepared pan. Bake 60 to 70 minutes in a moderate oven: 185 degrees Celsius. Cool and ice with orange glaze.

"Kilogram" Cake

Grease and line with paper: a 9 by 5 by 3-inch pan.

Sift together into a bowl:

$2\frac{1}{4}$ cups flour
1 cup sugar
2 teaspoons baking powder
1 teaspoon salt

Add:

$\frac{1}{2}$ cup soft shortening
1 teaspoon vanilla
5 egg yolks
 $\frac{1}{2}$ cup milk

Beat two minutes then add:
 $\frac{1}{2}$ cup milk

Mix together. Spoon batter into prepared pan. Bake 60-70 minutes in a moderate oven: 185 degrees Celsius. Cool and ice with orange glaze.

Subject Area(s) Math

Unit(s) Metricalion

Objective(s):

The student will relate the base 10 system presently used in our monetary system to the metric system.

The student will recognize the simplicity of learning and using the metric system as compared to the customary system.

Procedure:

Work base ten problems with money.

Have students think of a dollar bill as a standard unit:

kilo	1000 X dollar	\$1000.00
hecto	100 X dollar	100.00
deca	10 X dollar	10.00
unit	dollar	1.00
deci	1/10 X dollar	.10
centi	1/100 X dollar	.01
milli	1/1000 X dollar	.001

Substitute basic metric units for "dollar," adding prefixes to learn metric terms.

Resources and Materials:

Could use two-part hinged visual made from following two pages.

Evaluation:

A worksheet on the information could be used to evaluate student understanding.

Comments on use:

This might also be a good time to learn symbols in conjunction with this activity.

KILO

HECTO

DECA

—

DECI

CENTI

MILLI

1000 x dollar = \$1000

100 x dollar = \$ 100

10 x dollar = \$ 10

dollar \$1.00

1/10 x dollar = \$.10

1/100 x dollar = \$.01

x dollar = \$.001

METRICS IS LIKE DOLLARS

Subject Area(s) Math

Unit(s) Mettrication

Objective(s):

The student will relate known units of measurement to approximate metric counterparts to help gain understanding of the metric system and metric units of measurement.

Procedure:

Have students develop a list of items used in everyday life that are measured in some way.

Examples: carton of milk
pound of butter
9' x 12' carpet
quarter-inch wrench

Discuss dual labeling used at present, problems with fractions, etc.

Develop probable product size that will be used after conversion to metric system.

Examples: a liter of milk to replace a quart
4 liters to replace the gallon
butter in a 500 gram package
4 sticks of 125 grams each
a 3 x 4 meter carpet
a 6mm wrench

Resources and Materials:

Background information on the metric system is necessary.
See Mettrication Resource List, page

Evaluation:

Check units students select to see if they can visualize approximate equivalents.

Comments on use:

This should be used to help students visualize and conceptualize metric units. Don't let them get bogged down with conversion, emphasize that you are merely interested in relating approximate counterparts.

Objective(s):

Student will gain experience in finding the measurement of a given object in different units with the same measuring stick.

Student will gain experience in metric measurement.

Student will understand the relationship of .ten to the metric system.

Procedure:

Have students measure items in the classroom in centimeters, decimeters and meters.

Complete the work sheet.

In a follow-up discussion, ask students what they observe from the data in their tables.

Work sheet example:

Item	centimeters	decimeters	meters
Width of desk	90	9	0.9
Thickness of door	4	0.4	0.04
Etc.			

Resources and Materials:

Metric ruler and metric stick calibrated in centimeters and decimeters.

Work sheet to list item, centimeters, decimeters, and meters

Evaluation:

Evaluate accuracy of data on table and observations of students.

Comments on use:

The activity could be changed to be used to measure liquid volume, solid volume, weight.

Subject Area(s) Math

Unit(s) Metricalion

Objective(s):

Student will conceptualize metric measurements.

Procedure:

On the blackboard, list several metric measurements. For each measurement ask students to make up a question for which the given measurement is a sensible answer. Questions should be related to every day situations--another technique would be to have students relate questions associated with occupational fields of interest.

Examples:

40 grams (How much does this letter weigh? Do I need two stamps?)

42°C (It's hot today. What does the thermometer read?)

Resources and Materials:

List of metric measurements

Evaluation:

Evaluate correctness of questions developed.

Comments on use:

Objective(s):

To make judgments based on facts about temperature measured in Celsius units.

Procedure:

For class discussion or written exercise, ask students to answer questions, such as:

1. The thermometer reads 20°C . Will you need your winter coat? (No!)
2. The thermometer reads 15°C . Will the outdoor swimming pool be open today? (No!)
3. Your doctor takes your temperature, and finds it to be 37°C . Do you have a fever? (No!)
4. If your body temperature is 40°C , are you sick? (Yes!)
5. The temperature is 35°C . Should you go sledding or swimming? (Swimming)
6. It is 15° below zero, Celsius. Will you have trouble keeping warm watching a football game from an outdoor stadium if warmly dressed? (Yes! Don't try it.)
7. The temperature of a cup of cocoa is 50°C . Will it burn your tongue. (No!) What if it's 90°C ? (Be very careful!)
8. The temperature reads 0°C . Is it safe to go ice skating on the lake? (No!)
9. Mom forgot that her new oven is marked in Celsius units. She baked a cake setting the oven thermostat at 375° . What happened? Was the cake all doughy or was it completely dried out and burned? (Dried out and burned.)
10. Your bath water is 15°C . Will you have a scalding, warm or chilly bath? (A chilly bath.)
11. To help save energy, where should you set the room thermostat and still be reasonably comfortable? (20°C)

Resources and Materials:

Background information on Celsius units.

List of questions:

Same as the list under procedure.

Evaluation:

Comments on use:

Subject Area(s) Math

Unit(s) Mettrication, p. 2

Objective(s):

Procedure:

12. Your dad exclaims, "Who's been monkeying with the thermostat? It's 27°C in this room? No wonder we're so uncomfortable." Are you shivering or perspiring? (Perspiring)

Resources and Materials:

Evaluation:

Can be used as basis for class discussion and/or graded for accuracy.

Comments on use:

Subject Area(s) Math

Unit(s) Metriication

Objective(s):

To gain experience in estimating metric measurements reasonably.

Procedure:

Ask students to place decimal points so that the following statements are reasonable.

1. Jim is 1545 centimeters tall.
2. Mary's new baby brother weighs 350 kilograms
3. The fire truck sped by at 10000 kilometers ; per hour.
4. The car's gas tank was nearly empty. Dad filled it with 7800 liters.
5. The pop bottle holds 320 milliliters.
6. Mary drinks lots of milk every day, nearly 100 liters.
7. The school room is 320 meters high.
8. The distance from New York to San Francisco is about 51000 kilometers.
9. In the high jump at school, Don broke the class record by jumping 1200 centimeters.
10. Mom's favorite cake recipe calls for 5000 milliliters of vanilla.
11. A two-page letter from grandma weighs about 2000 grams.
12. Sam ran all the way home, averaging 100 kilometers per hour.
13. Carol's favorite hamburger stand serves big hamburgers. The meat alone weighs 2500 grams.
14. Beth's favorite candy bar weighs 1200 grams.
15. The thermometer dropped to 200°C last night. Fruit growers were worried about their orchards.
16. Peter Piper picked 8809 liters of pickled pepper. 8809 cm³ of pickled peppers Peter Piper picked. If Peter Piper picked 8809 ml of pickled peppers,

Evaluation:

Resources and Materials:

Background information on metric system.

List of statements:

Same as the list under procedure

Comments on use:

Subject Area(s) Math

Unit(s) Mettrication, p. 2

Objective(s):

Procedure:

where's the 8809 dm³ of pickled peppers Peter
Piper picked?

Resources and Materials:

Evaluation:

Can be used as basis for class discussion and/or graded for accuracy.

Comments on use: Answers: 1) 154.5 cm 2) 3.50 kg 3) 100 km/hr 4) 78.00 l
5) 320. ml 6) 1.00 l 7) 3.20 m 8) 4100.0 km 9) 120.0 cm 10) 5.000 ml 11) 20.00 g
12) 10.0 km/hr 13) 250.0 g 14) 120.0 g 15) 2.00 C 16) 8.809 l: 8,809 cm³; 8,809 ml;
8,809 dm³

Subject Area(s) Math

Unit(s) Metrication

Objective(s):

The student^s will practice using appropriate metric units in every day situations.

Procedure:

Ask students to restate typical "story problems" in your arithmetic text using reasonable metric units. Have them choose problems relating to every day situations.

Resources and Materials:

Textbook--Story problems

Evaluation:

Story problems can be checked to see if statements are reasonable.

Comments on use:

Students could be asked to work one another's problems for more practice in solving mathematical problems by use of metric units.

Objective(s):

The student will draw conclusions about reasons for converting to the metric system.

Procedure:

After reviewing the history of the development, have individual students develop own measuring tools with string. Example: Cut string length from thumb to nose for "yard," length of foot for "foot," width of thumb for "inch."

Have each student check to see if 12 "inches" equal the "foot," and if 3 "feet" equal the "yard."

Have students measure items in the room individually.

Compare the results of steps 2 and 3.

Discuss results. Relate to the development of the customary system of measurement and problems of standardization.

Resources and Materials:

Background information on the history of the development of the customary and metric systems of measurement. See Mettrication Resource List, p. 101. 101

String

Evaluation:

The students should realize the unscientific origin of the customary system of measurement, the problem of standardization, and of converting from feet to inches, yards to feet, etc.

Comments on use:

A study of the history of the development of the metric system can be done in conjunction with step 1 or following this activity. You may want to point out that the meter and kilogram, rather than the yard and the pound have been the official U.S. Standard of length and weight since 1893. A standard meter and a standard kilogram are on deposit at the National Bureau of Standards in Washington and are used as bases to define yards and pounds.

Objective(s):

The student will know common units of measurement in the metric system.

Procedure:

Have students develop own metric materials.

Suggestions:

1. Draw 10 meter rules on cardboard. Tape together to make metersticks.
2. Calibrate masking tape in centimeters and attach to wall to measure height.
3. Cubic centimeters may be cut from sponges.
4. Graph paper can be used to make square centimeters.
5. Milk cartons 10 centimeters high yield liters; cartons one centimeter high provide deciliters.
6. Raisins in plastic bags--
1 raisin = approximately 1 gram
10 raisins = approximately 1 dekagram
100 raisins = approximately 1 hectogram
1000 raisins = approximately 1 kilogram
7. A length of string can be used for a tape measure.
8. Meter sticks can be made on adding machine tape.
9. Use clear containers, fill with liquid in metric quantities. Mark with masking tape.

Etc.

Etc.

Resources and Materials:

Cardboard
Masking tape
Sponge
Graph paper
Milk cartons
Plastic bags and raisins
String
Adding machine tape
Clear containers, etc.
Also would need an original set as basis for developing own materials.

Evaluation:

This would be done to increase student's knowledge of the metric system and to develop materials to use in other activities--preciseness of materials developed could be measured.

Comments on use:

Objective(s):

Student uses and looks for opportunities to use metric units.

Procedure:

Have students prepare a description of self in metric terms. Body measurements are likely to be included by all. Encourage branching out to include distance from home to school, etc., using own imagination, to include as many metric terms as possible.

Resources and Materials:

Conversion charts or metric measuring devices

See Metrication Resource List, page 101.

Evaluation:

Accuracy of descriptions.

Comments on use:

Could read some of the best descriptions to class and see if they can recognize the individual.

Objective(s):

Student shows an awareness of the importance of becoming familiar with metric units.

Procedure:

"Shop" for product lines that carry labels or descriptions in metric terms through store visits, mail order catalogs, magazines, newspapers, and/or TV advertisements.

Report findings to class.

Suggestions to begin with: food, drugs, medical devices, tools, sports, equipment, cameras

Resources and Materials:

See Metrication Resource List, p. 101.

Evaluation:

Discuss how metric conversion will affect the consumer. Each student might be asked to list three ways he/she will be affected personally.

Comments on use:

This could be done as an individual or group activity.

Subject Area(s) Math and/or Science

Unit(s) Metrication

Objective(s):

Student will participate in class discussion of the advantages and disadvantages of the U.S. conversion to the metric system.

Procedure:

Arrange interviews with people who work in areas using the metric system and demerits of metrication for the U.S.

Tape comments.

Share tapes with other classmates and follow with discussion.

Possible interviewees:

- pharmacists
- auto repairmen
- nurses
- doctors
- science teachers
- food editors
- sports commentator
- photographer

Resources and Materials:

Recorder and tapes
See Metrication Resource List,
p. 101.

Evaluation:

Could evaluate follow-up discussion.

Comments on use:

It might be interesting to compare opinions of people familiar with the metric system with the opinions of people in occupations not using the metric system.

Objective(s):

Student determines public opinion in relation to the U.S. conversion to the metric system.

Procedure:

Develop and conduct a metric survey. Areas might include:

1. What people know about the metric system.
2. How people feel about conversion to metric.
3. Reasons given in favor of conversion.
4. Objections given by those opposed to conversion.

Try to categorize responses according to age levels, educational levels, and occupations.

Tabulate results.

Form conclusions.

Resources and Materials:

See Metrication Resource List, p. 101.

There are many advantages to Metric which simplify learning processes and also remove many of the pitfalls present in our U.S. customary system of weights and measures. The following could be stressed if the follow-up activity is used:

1. Metric-SI provides for an International Standard of Measurement in all but 21 countries of the world.
2. Metric-SI is a coherent system based on 7 base units. Coherent simply means that all the other units or derived units have been established from the product or quotient of 2 or more other Metric-SI units.
3. The units which describe the quantities remain the same. No longer is it necessary to memorize the number of ounces in a pound, pounds in a ton, or inches in a foot, feet in a yard, yards in a mile, etc.
4. The names of units regardless of technology, remain the same.

Evaluation:

Conclusions could be evaluated as well as follow-up discussion. Might have students develop plans to develop more favorable attitudes if results are negative.

Comments on use:

A summary could be written up. There might be interest in publishing it in the school or local paper.

5. Metric-SI is a decimal system based on the powers of 10, as in our present monetary system. Mechanical arithmetic associated with fractions is eliminated, therefore, improvement in accuracy and speed of calculation is an inherent advantage.

Objective(s):

- Student develops an awareness of the importance of becoming familiar with metric system.

Procedure:

Have each student or group of students chose an area of everyday life and determine how metrication would affect each.

Specific career choice areas could be used as well as leisure time activities.

Compare results of findings.

Starter suggestions:

- sewing
- construction
- cooking (recipes)
- surveying
- land titles
- sports
- bottling and packaging

Resources and Materials:

See Metrication Resource List, p. 101.

Students should also contact resource people to find out about measurement related to specific areas.

Evaluation:

Evaluate completeness of student's findings:

Comments on use:

Subject Area(s) Math/Social Studies

Unit(s) Metrication

Objective(s):

Student will recognize the need for a well-planned transition from the customary to the metric system of measurement.

Procedure:

Divide the class into groups.

Have each group develop a program in a given area for a smooth conversion to the metric system. Allow time for research where necessary.

Suggested areas:

- educators
- retailers
- manufacturers
- the press
- government (local, state, federal)
- consumer groups
- television and radio stations
- individuals
- real estate

Resources and Materials:

See Metrication Resource List, p. 101.

Students may need to contact people affiliated with these areas for additional information.

A Marketing and Sales Checklist for Metric System is included on the next page.

Evaluation:

Feasibility and completeness of plans. Might also check with people in these areas to determine if plans have been developed and do a comparison.

Comments on use:

MARKETING AND SALES CHECK LIST FOR METRIC SYSTEM

1. Institute a market research program.
2. Consider what products can be eliminated before metric system takes effect in order to reduce capital outlay for changeover.
3. Usually companies can cut stock to customer by 30% without a fall off in standard of services to customers. Don't do this during the metric transition period and it could help warehousing problems.
4. Use a liaison with customers.
5. Assist in engineering studies.
6. Prepare a sales forecast during transition period. This will help one to analyze marketing problems.
7. Work closely with suppliers of materials.
8. Introduce modern statistical forecasting techniques. This will help in the master plan for total metric changeover.
9. Investigate and review methods of packaging, including any necessary changes to weights and measures.
10. Prepare new or modified sales literature and plan an appropriate sales program.
11. Train all marketing people in Metric-Si System.
12. Consider the interaction between metrication and decimalization and current pricing policies.

After a company has completed steps in this process, they should be reviewed for possible changes.

Objective(s):

Student knows common units of measurement in the metric system.

Student solves mathematical problems by use of metric units.

Student proposes a plan to use in substituting metric units for customary units in given situations.

Procedure:

Have each student plan a metric motor trip to a fairly distant city figuring the following:

1. distance in kilometers
2. speed in kilometers per hour--time necessary
3. kilometers per liter for own or parent's car
4. liters of gasoline necessary for total trip

Have each student select a law involving measurement.

Determine the way to modify the law to comply with the metric system.

Examples:

speed limits
distance ahead of turning point to give hand signals or change lanes
allowable following distance behind any fire apparatus driving in response to a fire alarm
projections on vehicles
truck size, etc.
government regulated measurement
city building codes

Resources and Materials:

Maps

Conversion chart

See Metrication Resource List, p. 101.

State Driver's Guide

City building code

Information on laws involving measurement

Evaluation:

Accuracy of computations.

Evaluate correctness of metric units substituted.

Comments on use:

Could also go one step farther and figure cost at present gasoline price--but have students figure cost per liter rather than per gallon.

Subject Area(s) Science

Unit(s) Metrication

Objective(s):

Student will determine an advantage of using the metric system.

Procedure:

Have students research origins of our system of measurement vs. the metric system.
Also, find occupational areas in U.S. now using metric system and look at reasons why.

Determine which system of measurement--metric or "unmetric"--is more scientific.

Resources and Materials:

Encyclopedia and other resource books
See Metrication Resource List, p. 101.

Evaluation:

Can evaluate thoroughness of students' research.

Comments on use:

Subject Area(s) Social Studies

Unit(s) Metrication - Trade

Objective(s):

Student appreciates the role metrication would play in improving the U.S. position in world trade.

Procedure:

Have students draw map of the world, outlining countries. Then color those countries using the metric system in one color--others in a contrasting color. Lead into the implications for trade with other nations, the disadvantage because our measurements are not standard, the probable affect on international trade due to changing to the metric system. etc.

Resources and Materials:

An Educator's Guide for Teaching Metrication

See Metrication Resource List, p. 101.

Evaluation:

Comments on use:

Subject Area(s) Social Studies/Math

Unit(s) Mettrication:

Measurement Domestic trade
Foreign trade Government affairs

Objective(s):

The student will demonstrate an understanding of significant developments in systems of weights and measures.

Procedure:

Bulletin board suggestion:

Have students prepare a time line showing significant developments in systems of weights and measures throughout history.

This could be done by an individual student or by a group as students work on various projects.

Resources and Materials:

See Mettrication Resource List,
p. 101.

Evaluation:

Evaluate correctness and completeness of events included. \

Comments on use: /

STUDENT WORKSHEET

NAME _____

MATERIAL:

You will need a pencil and a metric ruler with millimeter and centimeter calibrations.

ACTIVITY:

Carefully follow the directions at the bottom of this page. If you do, you'll get the message!

Start at point A.

Draw a line segment to the point that is 2 cm away.

From there go upward to a point 34 mm distant.

Continue generally upward to a point 24 mm away.

Then, draw a line segment to a point 26 mm away.

Now, skip upward to a point 33 mm distant.

From there draw a line segment downward to a point 7 cm distant.

Next, back up 33 mm;

then, up 4 cm;

and back 23 mm.

Next, find a point 43 mm away and draw a line segment to it
now down 6 mm;

then, to the left 72 mm;

and up 3 cm from there;

and finally, up 23 mm.

STUDENT WORKSHEET

Each box in the big rectangle below has a measurement written in it. When you find 3 boxes in a row (horizontally, vertically or diagonally) whose measurements add to 1 meter, draw a loop around those three boxes. How many loops can you draw?

6 dm	4 dm	30 cm	600 mm	1 dm	40 cm	50 mm	50 cm
10 cm	5 dm	60 cm	7 dm	2 dm	90 cm	500 mm	10 cm
300 mm	40 cm	8 dm	400 mm	800 mm	10 cm	1 dm	4 dm
400 mm	100 mm	10 cm	40 cm	6 dm	8 dm	500 mm	60 cm
150 mm	1 dm	300 mm	42 cm	4 dm	18 cm	40 cm	80 cm
40 cm	5 dm	2 dm	800 mm	200 mm	30 cm	3 dm	150 mm
20 cm	4 dm	350 mm	10 cm	7 dm	20 cm	1 dm	50 mm
10 cm	4 dm	200 mm	1 dm	100 mm	2 dm	3 dm	5 dm

STUDENT WORKSHEET

OBJECTIVE:

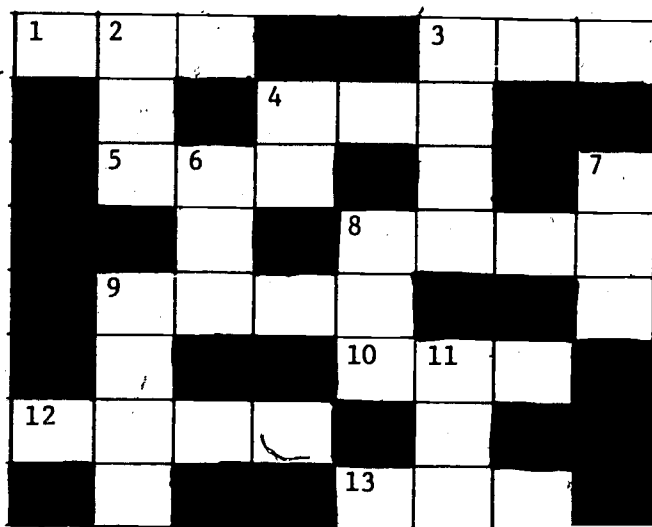
To drill converting from one metric unit of liquid volume to another.

MATERIAL:

A copy of the cross-number puzzle (shown below) for each student

ACTIVITY:

- Complete the cross-number puzzle using the clues below.



DOWN

- 800 dl + 9600 cl = _____ l
- 2 l + 11.57 dl = _____ ml
- 300 dl + 1500 cl = _____ l
- 3 l + 11.7 dl = _____ cl
- 0.26 l + 1.3 cl = _____ ml
- 1.2 dl = 0.12 l = _____ ml
- 50 l + 1680 ml = _____ cl
- 6000 dl + 3800 cl = _____ l

ACROSS

- 2 dl + 11.4 cl = _____ ml
- 4 l - 30 ml = _____ cl
- 400 l + 81,000 ml = _____ l
- 64 l + 50 cl = _____ dl
- 2.7 l + 4.7 cl = _____ ml
- 57 l + 240 ml = _____ cl
- 100,000 ml + 6500 cl = _____ l
- 3 l + 16.27 dl = _____ ml
- 0.15 l + 13.7 cl = _____ ml

ANSWERS

Across

- 314 ml
- 397 cl
- 481 l
- 645 dl
- 2747 ml
- 5724 cl
- 165 l
- 4627 ml
- 287 ml

Down

- 176 l
- 3157 ml
- 45 l
- 417 cl
- 273 ml
- 241 ml
- 5168 cl
- 638 l

STUDENT ACTIVITY

OBJECTIVES:

1. To find the volume of a solid by counting the number of small cubes required to fill the solid
2. To discover that finding the area of a region only amounts to counting squares within the region
3. To discover that solids with different surface areas can have the same volume
4. To discover the formula for solid volume and the formula for the surface area of a rectangular solid

MATERIALS:

1. Scissors, glue or transparent tape
2. Copies of the patterns for each student
3. A supply of metric rods or blocks

ACTIVITY:

1. Ask students to cut out the patterns and form five different rectangular solids by folding back along the heavy lines through a right angle and by taping or pasting the indicated tabs to hold the solids together.
2. Ask students to determine the volume of each of the solids. If they cannot readily do this, let them open the top of the box and pile blocks into the box until it is full. Then, count the blocks; that's the solid volume. Note that students need not fill the boxes with only "one cubic centimeter" rods (since so many would be required). They may use appropriate longer rods instead. For example, instead of 6 "one centimeter" rods, a 6 cubic centimeter rod may be used.
3. After the students have determined the solid volume of each box (120 cm³) ask them to find the surface area of the box by counting the squares on the surface. Each square is a square centimeter.
4. Make certain that students understand that different shapes need not suggest different volumes and that the same volume need not suggest the same surface area.
5. Ask students if they can find a quick way (develop a formula) to the volume of a rectangular solid without counting blocks every time. Then, ask them if they can find the surface area of a rectangular solid without counting squares each time. Those who are successful in finding a "quick way" to determine the volume or area will better appreciate the correct role of a formula. Moreover, this activity should help remove the mysterious quality that formulas seem to hold for many students.

ACTIVITY WORKSHEET

[illegible]

ACTIVITY WORKSHEET

A large grid of 100 squares (10 rows by 10 columns) with a 4x4 grid attached to the left side. The word "PASTE" is written in the top-left, bottom-left, and right-center areas.

2

7

A large grid of graph paper. The grid is composed of a 5x5 grid on the left and a 10x10 grid on the right. The word "PASTE" is written in a box at the top right and bottom right of the grid.

ACTIVITY WORKSHEET

[illegible]

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National Bureau of Standards, U.S. Department of Commerce, Metric Information Office, Washington, DC 20234

American National Standards Institute, 1430 Broadway, New York, NY 10018

American National Metric Council, 1625 Massachusetts Ave., N.W., Washington, DC 20036

American Society for Testing and Materials, 1917 Race St., Philadelphia, PA 19103

Center for Metric Education, Western Michigan University, Kalamazoo, MI 49001

Metric Association, Sugarloaf Star Route, Boulder, CO 80302

National Council of Teachers of Mathematics, 1906 Association Drive, Reston, VA 22091

National Education Association, 1201 16th Street, N.W., Washington, DC 20036

National Science Teachers Association, 1201 16th Street, N.W., Washington, DC 20036

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SPECIAL EDUCATION

112

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COURSE OF STUDY^a
FOR
VOCATIONAL MULTI-OCCUPATIONS CLASS
Cooperative Work-Study
11th & 12th Grade
SPECIAL EDUCATION

Prepared by
Faye Edde

Area Vocational-Technical School
Marshall, Missouri

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CAREER EDUCATION

Previously our educational ideal had been to produce intelligent, well-informed citizens to take an active interest in the world around them. Almost all elementary education was general education.

Education is more important today than ever before. It not only helps people acquire the skills they need for everyday activities such as reading a newspaper or managing their money, it also gives them the specialized training they may need to prepare for a job or career.

Most young people daydream about the kind of work or career they will do when they are adults. Their choice of a career is definitely a part of their development as a person.

Career Education should:

- o help guide students into careers of their greatest interest.
- o put them on the quickest, most direct path to achieve their goal.
- o help the students arrive ~~at~~ their beginning career well prepared with marketable skills.
- o coordinate and utilize all community and school resources.
- o involve the community in an advisory capacity, especially business and industry.
- o prepare students more realistically to become productive citizens in an age of technology.
- o help keep students from dropping out of school.
- o be geared to economic independence, personal fulfillment and appreciation for the dignity of work.
- o be built around actual jobs as they exist in our general economy, not limited to our immediate locality.
- o include exploratory, simulation, and career awareness material and relevant work experiences.
- o be testing one's skills on a paid job while at the same time pursuing related instruction in school.

VOCATIONAL MULTI-OCCUPATIONS COURSE

Introduction

I

This course is an educational offering designed to give the handicapped and disadvantaged students of this school district presently attending our Special Education School pre-vocational orientation, vocational preparation and ultimate job placement in their area of preparation. It is designed to serve as a capstone for our present special education curriculum, which is principally academically oriented.

The job skills and procedures will, for the most part, be taught to the student by his employer on the job. The specific technical and related information required in their occupation will largely be taught on the individual basis in the cooperative part-time-related training class.

II

This is a two-year program. The first-year students will be classified as juniors and attend class one-half day and either work on a job or be enrolled in a preparation course the remainder of the day. The second year students will be classified as seniors and may work full-time on a job.

In general, students will be selected from those attending the special education schools with exceptions being made in cases where the student gives indication of being able to benefit from this type of program.

General qualifications are:

1. Be 15 years old by September 1 of each school year.
2. Possess an I.Q. within the range of 45-78.
3. Be recommended by his counselor as being able to benefit from the program.
4. Display a real interest in some facet of this program.

The suggested entering capabilities for this course are:

1. A sincere interest in wanting to work.
2. A sincere interest in wanting to learn to qualify for the job they are interested in.
3. Ability to get along with different people.
4. A good attendance record.
5. Neat appearance.
6. Ability to read (at least 3rd grade).
7. Ability to write legibly.
8. Adequate speech.
9. Basic arithmetic (addition, subtraction, multiplication facts).
10. Cooperation of parents.

OBJECTIVES OF VOCATIONAL MULTI-OCCUPATIONS COURSE

This course is designed to give the students an:

1. Awareness that satisfying work experience fosters self-worth and respect.
2. Ability to realistically evaluate individual interests and competence in relation to qualifications and requirements for specific jobs.
3. Awareness of acceptable and pleasing appearance as a basic consideration in seeking employment and in remaining employable.
4. Awareness of importance of personal attributes in securing and advancing in an occupation.

The specific objectives are:

1. Inventory his/her personality and work out a plan toward any necessary improvement.
2. Improve his/her appearance (if necessary) to where it no longer hinders employment.
3. Be able to fill out a work application without assistance.
4. Demonstrate proper interview techniques.
5. Explain factors that cause a bad impression.
6. Be able to plan a realistic personal budget.
7. Be able to make change. (Suitable for a carhop job or in a lesser degree).
8. Be able to follow the instructions and obey the orders of the job they are working on.
9. Describe the procedure for leaving a job.
10. Acquire a worthwhile hobby during the year.
11. Spell 90% of the required spelling list.
12. Have an up-to-date, accurate, data sheet filled out.
13. Be able to interpret "help-wanted" ads.
14. Calculate how to keep and figure his/her work time.
15. Secure a job before the end of the year.

SCOPE AND CONTENT OF COURSE

Since work itself is an important aspect of the total socialization process of the individual, students taking this course are taught such things as how to "get along on the job," how to relate to the boss, to co-workers, to know the importance of getting to work on time, of being "vocationally honest," and other like behaviors that are expected of a worker. The purpose of this course of study is to provide assistance to the teacher.

This course is designed to provide instruction for the eleventh and twelfth grade. The class should meet three hours a day five days a week for thirty-six weeks.

The sequence of the course is presented in the following major divisions:

- I. SELF-EVALUATION: Knowing and understanding one's self.
Objective: To determine individual characteristics for each individual.
 - A. Personality Study
 - B. Improvement Program
- II. JOB STUDY: Choices and opportunities.
Objective: To help the students determine which job is most appropriate for him/her, meets his/her present needs, and fits into his/her long-range plans.
 - A. Learning about different jobs.
 - B. How to pick a job.
 - C. Relating yourself to a job.
- III. GETTING A JOB: Applying for and being selected.
Objective: Selling one's self to the employer as the applicant best qualified for the job.
 - A. What do you have to offer?
 - B. How to locate job openings.
 - C. How to get an interview.
 - D. Landing the job.
- IV. PROGRESS ON THE JOB: Success and achievement.
Objective: To have the satisfaction of knowing that you have more than met the demands of your job and improving your chances for the future.
 - A. Acquire good work habits.
 - B. Obtain more preparation and acquire wider skill.
 - C. Work for a promotion.

ANALYSIS OF
VOCATIONAL MULTI-OCCUPATIONS

MANIPULATIVE OPERATIONS:
What the student should
be able to do

INFORMATIONAL TOPICS:
What the student should
know

Self-Evaluation

A
Personality Study

1. Read books and pamphlets on personality, attitudes and behaviors.

Use film and filmstrips to show proper behavior.

2. Evaluate themselves on each trait of the personality study, then compare it to the personality requirements of a job they are interested in.

3. List chief reasons why one may lose a job.

4. Have students relate their abilities and limitations that they feel may influence job performance.

5. Take employment office tests.

1. What personality is.

2. The importance of self-evaluation.

3. The importance of personal and work relations among co-workers and between supervisors and employees.

4. Everyone has abilities and limitations which influence performance on the job.

5. Certain tests are being widely used by school guidance counselors and employment agencies to measure one's interests and abilities and, therefore, help determine the most appropriate employment areas.

DISCUSSION TOPICS

What type of person makes a good reference?

Factors that cause a bad impression

How to create a good impression

Ways by which an employee may earn advancement:

punctuality, attention to work,
ability to do the work,
appearance, following directions,
getting along with others,
dependability, honesty

Manners on the job

How to correct faults

Chief reasons why one may lose
a job

Value of a good friend

The art of apologizing

How talking a problem over with
someone helps

Is trouble ever good for us?

How do you know whether people
like you?

What helps to make friends?

What is a true friend?

How attitudes are influenced
by experience

How we affect the attitudes of
others

Being a real friend

RELATED AND INTEGRATED ACTIVITIES

Social Skills: Discuss problems in family situations and focus attention on desirable family relationships.

Skits might be presented showing proper and improper ways to handle family problems.

Management and workers from local jobs can be invited to talk to the students about the importance of personality on their jobs and in their business.

Role play situations that might occur at home or at work. Let students improvise different roles. Discuss student reactions to some of the dramatized situations.

Plan a class party.

B Improvement Program

6. Student lists any problems he might have and determine if something might be done about each.

6. That many problems are self-made.

Pose a financial problem. One student acts the person with the problem, the other gives advice. After several students have played the adviser, the class discusses the advice given.

7. Fill out data sheet. Take interest test.
 8. Cite instances in which well-known personalities overcome personal limitations to become successful.
 9. Develop a plan of action leading to a self-improvement goal in an area personalized for each student.
 10. Students select jobs which interest them and use readings and interviews to find out about the personal attributes expected by an employer.
 11. Set goals for self-improvement on the basis of qualities employers seem to expect of an employee.
7. Know own abilities and limitations.
 8. Many personal limitations can be overcome with effort.
 9. Self-improvement is a continuing responsibility of the individual.
 10. Certain employers require particular personal qualities in their employees which will lend to success in their job.
 11. Through objective self-evaluation decisions can be made regarding appropriate selection of jobs.

DISCUSSION TOPICS

What can be learned from former students returning to school to share their work experiences?
 Valid reasons for accepting or rejecting job opportunities
 What type of person makes a good reference?
 Profiting by your mistakes
 Constructive ways to spend leisure time
 Importance of punctuality, not only on the job, but in all things
 How to correct faults
 Improving one's appearance
 Party manners
 Good relationships at home and at work

Weight control and physical fitness
Which of our problems are self-made?
What helps you make friends?
Which is better--following or
leading? How can we decide
in specific situations?

RELATED AND INTEGRATED ACTIVITIES

General: Students will enjoy acting out situations such as times when a pleasant personality saved the day.

Let students dramatize situations that require a lot of tact.

Categorize a variety of jobs where personality is as important as a skill. Do a personality inventory.

Dramatize incidents between employer and employee, employer and customer, supervisor and "Big Boss", and student and teacher.

If possible, attend a fashion show.

Use a tape recorder to check voice and speech.

English: Write essays or stories on such topics as "A Personality Trait I would like to Change," "What---Did Wrong on the Job," "Why----Was Fired," "My Boss," "How To Correct Faults."

Choose, write, and mail appropriate cards to friends on special occasions.

List at least five helpful things you could do to make a fellow worker like you. Then write this into a story.

Mathematics: Solve problems about allowing enough time to get places or to do things, and about budgeting time.

Job Study

A

Learning About Different Jobs

12. References, career brochures and text will be used to note how occupations are described.

12. Nature of work, job qualifications, preparation required, entrance and advancement, working conditions, availability of employment, earnings, and stability of employment, and fringe benefits are considered in determining occupational choice.

DISCUSSION TOPICS

What can be learned from former students returning to school to share their work experiences?

The first job---a source of experience or a permanent commitment

Effect of vending machines on food industry

Types of loads carried by large vans

Having a small business at home

Work of the food-service helper in local establishments

Odd jobs and their availability in the local community

Different kinds of uniforms worn on the job

Jobs in a movie theater

Necessary skills for different jobs

Jobs in a laundry

Living and working on a farm

Utilities in our locality

Lumbering in the United States

Kinds of jobs in a department store

Advantages of knowing more than one trade when applying for work

Importance of choosing the right kind of job

What does automation mean

Working conditions on different jobs

Source of local water supply

What are some underground jobs and what dangers do the workers face?

How emergency calls are handled in a city sewer department

How community disposes of many tons of rubbish every day

Our community's recreational facilities

Local method of street sanitation

What home repairs should be done by a handy-man? by a skilled repairman?

RELATED AND INTEGRATED ACTIVITIES

General: Class could compile a list of low-skilled jobs that are available in the local employment area.

Social Skills: Skits might be presented involving the work done on a particular job.

Management and workers from local food establishments can be invited to speak to the students.

Mathematics: Problems can include discount buying and totaling cost of orders from menus. These are duties performed on jobs.

Arithmetic concepts involved in reading a medical thermometer and various measures used by handymen.

Practice completing customer's check and making change rapidly and accurately.

Cashiering, price marking, inventory taking can all be used to provide functional arithmetic instruction and learn about jobs.

Reading: Read stories about jobs.
Read and interpret newspaper ads.

Handwork: Packing, wrapping, and tying boxes will develop appreciation of some stockroom duties and teach a useful skill.

B
How To Pick A Job

- | | |
|---|--|
| 13. Film: "Personal Qualities For a Job." (Coronet Film) Using the film as a guide, discuss opportunities for evaluating an occupation. | 13. One's personal qualifications relate to decision-making regarding employment. |
| 14. Filmstrip: "Finding the Right Job For You." Interview friends and neighbors concerning employment possibilities. | 14. Criteria for choosing an occupation would be: benefits available, family influences, amount of education, working conditions, and job locations. |
| 15. Obtain information from a specific union contract and make a list from it. | 15. The benefits of belonging to a union. |
| 16. Films on such topics as the importance of garbage removal. Make a list of odd jobs and their availability in the community. | 16. Some jobs are often regarded as highly undesirable, yet they have importance and dignity. |

DISCUSSION TOPICS

Personal aspirations vs. job availability

Should one's aspirations be higher or lower than one's capabilities?

The first job--a source of experience or a permanent commitment?

Valid reasons for accepting or rejecting job opportunities

Working away from home vs. working near home

Hobbies that could lead to a second job

Job prestige and need for pride in all work

Pride in things we make or build

Benefits of and requirements for advancement on the job

The value of a steady job vs. seasonal work

Advantages and disadvantages of working in a suburban store

How should one make decisions?

Is it possible to change jobs and yet work for the same employer?

Testing and job placement

How new workers are assigned

Working conditions on different jobs

Working overtime in emergencies

RELATED AND INTEGRATED ACTIVITIES

Social Studies: Tracing the route of various food items from producer to consumer can give the students a better realization of how many jobs are involved in the food industry.

Students can be encouraged to study job-training programs so that they will better appreciate their occupational advantages.

Visit a utility company.

Shop: Repair small appliances brought from home with parent's permission.

Science: A project in nutrition, dealing with the value of balanced meals might spark an interest in the food service field.

Both boys and girls would be interested in the numerous methods and processes of food packaging and preparation.

Study mechanics of a telephone.

English: Write a report on a job study done.

Write to local companies for information on their retirement plans and other company benefits.

C

Relating Yourself To A Job

- | | |
|---|--|
| 17. Study the working conditions on jobs they think they may like. Take a field trip to places they are interested in. | 17. A worker is more successful if he likes his job. |
| 18. Prepared list to copy and study. | 18. Reasons for job failures. |
| 19. Playing roles such as a customer annoyed at having to wait and having groceries damaged, the manager apologizing to the customer, the employee being told he is fired. | 19. The possible bad results of questionable attitudes on the job. |
| 20. Answer these questions:
1. Are you willing to help the other fellow?
2. Are you willing to go halfway?
3. Do you show annoyance on slight provocation?
4. Do you try to be fair?
5. Do you bear grudges?
6. Are you willing to give the other fellow the benefit of the doubt?
7. Do you try to see more of the good than the bad?
8. Do you think only of your own interest? | 20. In general, the following characteristics are most often listed as desirable by employers: Promptness; dependability; physical stamina, management of time, equipment and motions; pride in work well done; and acceptable appearance. |

DISCUSSION TOPICS

Necessary skills for different jobs

Chief reasons why one may lose a job

Does your personality fit the job?

Reasons for choosing a certain job

Why choosing the right job is important

Sources of information about getting to know yourself better

Interest inventories

One's physical, social and emotional characteristics

One's past achievements or failures

Does the job meet your needs?

RELATED AND INTERGRATED ACTIVITIES

General: Each subject in school should provide an opportunity for the student to develop any natural talent in that area.

Getting A Job

A

What Do You Have To Offer?

21. Take ability and interest test and discuss with counselor.

21. Some abilities usually important are: academic learning ability, ability to comprehend three dimensional forms, finger dexterity, color discrimination, coordination of hands and eyes, ability to recognize and match various forms, memory, ability to solve problems and use figures, ability to understand and use words.

22. Filmstrip: "Selling Yourself to An Employer"

22. Judgments of individuals are influenced by personal qualities observed during an interview.

23. Discuss possible changes that might be required.

23. Traits most sought after include: promptness, dependability, friendliness, enthusiasm for work and for learning, good grooming, appropriate dress, sense of humor, ability to accept and apply suggestions, health, intelligence, and initiative.

DISCUSSION TOPICS

Does your talents match the requirements of the job?

Does your personality match the job?

Do you have a real willingness and desire to learn new skills and new ways of doing things?

Can you apply yourself to an interesting job without being easily bored or distracted?

Can you adapt to new and unexpected situations easily?

Do you have a sense of duty and responsibility?

Can you work without constant supervision?

Can you accept criticism without feeling hurt?

RELATED AND INTEGRATED ACTIVITIES

English: Teach student to talk well to others, to understand instructions and follow them carefully, to answer questions politely.

Shop: Teach student about tools and about doing simple carpentry that might be useful on a job; give practice in running machines; and help student to learn to work well with hands.

Gym Classes: Help student to be strong enough to do heavy work.

Home Economics: Include the best ways to clean, the different kinds of waxes, cleaning liquids, and disinfectants, and how to use them; different types of materials and how they should be washed; how to work in a kitchen and how to use all of the equipment; about food and how it should be fixed; how to work well with a needle and thread, about patterns and how to put garments together.

Arithmetic: Include how to measure correctly and read numbers well, how to keep accurate records, counting money and making change, adding up bills, read charts, counting, and many other areas that prepares one to work with numbers.

B

How To Locate The Job Opening

24. Have each student survey five employed people to find out how each learned about his present job.

24. There are various ways of finding jobs--for example, through relatives and friends who are working in places where one would like to work, use of newspapers, help-wanted signs in windows, state employment services, going from place to place looking for a job.

25. Look up names and addresses of a certain job.

25. Know how to use the classified telephone directory.

DISCUSSION TOPICS

The school's role in preparing pupils for successful employment

Various ways in which a job seeker obtains job information

Use and abuse of employment office services

Sources of employment assistance

Value of a good friend

Testing and job placement

C
How To Get An Interview

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| 26. Have an employer speak to the class to explain how to arrange for interviews. | 26. Interviews are to be pre-arranged. |
| 27. Write letters of application. Get information from business education teacher. | 27. A letter of application may be used to make the initial contact. |
| 28. Study want ads to find information given for contacting employer for an interview. | 28. It is permissible to telephone for an appointment when so stated in a "help-wanted" ad. |

DISCUSSION TOPICS

The importance of hobbies and other interests
What type of person makes a good reference?
Advantages of obtaining permission from references in advance
Value of a good reference
Importance of punctuality, not only on the job, but in all things
Importance of having good references

D
Landing The Job

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|---|--|
| 29. Visit to class by personnel manager.

Teacher prepared hand-out. | 29. Know the proper interview techniques. |
| 30. Fill out a work application from several jobs. | 30. How to fill out a work application. |
| 31. Have talk with the guidance counselor about the mechanics and the importance of job interviews. | 31. That the lack of getting a job is often directly related to the impression made by the job seeker. |

32. Make posters showing suitable wardrobes for having an interview.
33. Survey employers in regard to how manner of dress affects first impression.
34. Filmstrip: "Selling Yourself to an Employer."
35. Role playing to show various interviewing situations.

32. Certain codes of dress are essential to successful job interviewing.
33. An individual's manner of dress serves the employer as a possible indicator of job performance.
34. Judgements of individuals are influenced by personal qualities observed during the interview.
35. A natural and poised manner and a willingness to be helpful to the interviewer contribute to an effective interview.

DISCUSSION TOPICS

How to conduct yourself while waiting for an interview
 Factors that cause a bad impression
 How to create a good impression
 Improving one's appearance
 What to expect during an interview
 Importance of being yourself during the interview
 Importance of attitude, your outlook on life, toward the job

Progress On The Job

A

Acquire Good Work Habits

36. Have students present in writing or orally an account of something each can do well. Follow with discussion and demonstrations.

36. The importance of pride in a job well done.

37. Have students discuss school rules and relationships. Lead into discussion of applications of same in regard to working. Have students develop own lists of what a conscientious student/employee should do. Compile list & discuss.
 38. Carry over activity #37.
 39. Make and keep a classroom chart on punctuality for:
class
work done
appointments
Solve problems about allowing enough time to get places, or to do things, and about budgeting time.
 40. Discussion by school doctor or nurse on first aid procedures. Write up what to do for one incident.
 41. Skit by class showing differences between "just getting by" and doing a job thoroughly
 42. Have an employer talk to students about affects of absenteeism in work setting.
 43. Survey employers to see how many check school/work attendance records before hiring.
 44. Skit: "Discharged from employment because of actions."
 45. List & discuss possible results of employee who is not alert & rested in various job situations.
37. A conscientious employee does the following: Exemplifies efficiency, follows company regulations, keeps good relations among workers, respects company property and time.
 38. The need for alertness on the job and attention to job responsibilities.
 39. The importance of punctuality not only on the job, but in all things.
 40. Know the correct procedures to use when reporting emergencies.
 41. That the task thoroughly reflects interest, knowledge and dependability.
 42. An employer buys time and energy when he hires an individual.
 43. Absenteeism is reflected negatively in the employer's evaluation of the employee.
 44. Honesty and dependability determine worth of employee.
 45. An employee has the responsibility of being alert and rested.

- | | |
|---|---|
| <p>46. Discuss relationship of personal life to satisfaction in school/work situations.</p> <p>47. Make a self analysis of health. List improvements which could be made in general health habits.</p> <p>48. Inquire from several different types of jobs what is accepted by the employer as proper dress. Observe workers on the job and report their dress</p> <p>49. Have each student write a personal goal. Develop lists of steps needed to reach a goal.</p> | <p>46. Worry and anxiety caused by personal problems affect the efficiency of one's work.</p> <p>47. Physical discomfort caused by personal carelessness is a fallible excuse for failure to meet responsibility.</p> <p>48. Practicing acceptable grooming procedures relates to one's effectiveness and success in employment situations.</p> <p>49. Factors involved in initiative include: thought, attention to detail, creativity, perseverance and responsibility.</p> |
|---|---|

DISCUSSION TOPICS

Employee responsibility to employer
 Employee loyalty to employer
 Customer attitudes toward poor service
 How experienced workers feel about new workers
 Employee's responsibility to customer and employer
 Profiting by your mistakes
 Working hard only when the boss is looking
 Doing a job right vs. finding shortcuts
 Correct procedures to use when reporting emergencies
 Reasons why a person may be fired
 How to correct habitual tardiness
 Importance of following instructions and obeying orders
 Manners on the job
 Good employer-employee relations
 How to correct faults
 How to put a "fresh guy" in his place

Necessity for rules on any job
Values of another chance
What constitutes a legitimate
sick leave
Mature approach to self-control
Importance of team work
How prompt service affects cus-
tomer's attitude toward a
business
The attention-getter and the
excuse-maker

RELATED AND INTEGRATED ACTIVITIES

Acquiring good work habits should be stressed in every subject taught.

B

Obtain More Preparation and Acquire Wider Skills

- | | |
|--|--|
| 50. Using what information that is available to determine if you will be qualified for expected changes of possible promotions. | 50. What changes are expected in the job you now have. |
| 51. Have students survey ways others were promoted to job that might interest them. | 51. What extra jobs would give additional skills and help qualify for a promotion later on. |
| 52. Use survey form to find out which students are satisfied & related jobs they would <u>not</u> want--then those students who are not satisfied and related jobs they <u>would</u> want. | 52. That it is possible to be satisfied with the vocation one is in, but dissatisfied with his particular job. |
| 54. Use the <u>Occupational Outlook Handbook</u> to determine what training is required for your long range goals. | 53. Some jobs offer further training as a fringe benefit. |
| | 54. A college or university near you may provide night classes, a trade school or correspondence courses. |

DISCUSSION TOPICS

The first job--a source of experience or a permanent commitment?

Valid reasons for accepting or rejecting job opportunities.

Making a sincere and vigorous effort
to learn your new job
Looking for ways of improving your
job
Holding two jobs (reasons, time
problems)
Hobbies that relate to your job
Taking advantage of training
courses and special orienta-
tion classes
Importance of showing initiative
and interest and a sincere
appreciation of the help you
receive in learning your new
job
To ask questions when not sure
about something instead of
going ahead and making mis-
takes that may prove serious
The use of libraries, trade
publications, company maga-
zines and special evening
courses to help learn the job

C
Work For A Promotion

- | | |
|---|--|
| 55. Resource person to speak--
one who has decided not to
take a promotion, if possible | 55. Promotions often mean that you
are given an increase in pay
and are expected to handle
greater responsibility. Be
sure you want a promotion. |
| 56. Resource person - an employer | 56. Should be willing to take on
any extra duties to gain more
training and experience. |
| 57. Resource person - a supervisor | 57. If your promotion carries
responsibilities for the work
of other, you must learn to
be a good supervisor. |
| 58-61. Have a panel with at
least one supervisor and his/
her employer. | 58. To be a good supervisor you
must be able to:
<ol style="list-style-type: none"> 1. give directions clearly. 2. plan training for new
workers 3. be consistent. 4. treat workers fairly. 5. be firm when necessary. 6. be mindful of workers
welfare. 7. set a good example. 8. not play favorites. |

59. There are advantages in holding a supervisory job:
1. usually more pay
 2. a certain amount of prestige
 3. freedom from some of the more routine or dull jobs
 4. greater chance to be creative
 5. if successful, a way to future advancement with the company
60. There are disadvantages in being a supervisor:
1. you do not have as close a relationship with your co-workers
 2. you are a target for criticism
 3. your mistakes are more costly than other workers
 4. you have a heavier burden of work sometimes when responsible for entire output of a department or company
61. Things most often considered by employers in deciding who shall be promoted:
1. seniority
 2. knowledge of job
 3. quality of work
 4. quantity of work
 5. initiative
 6. perseverance
 7. cooperativeness
 8. ability to think
 9. adaptability
 10. adequacy of training

DISCUSSION TOPICS

Permanence and progress on the job depend on how satisfactory your boss finds you as an employee.

The importance of being conscientious and punctual

Showing respect due your boss as a human being too. Try to see his side.

Being a good listener

Using the companies suggestion plan

The importance of being more than satisfactory

TEXTBOOKS AND REFERENCES

Textbooks:

The text chosen for this course is designed for use with teenagers who have been identified as potential dropouts; for slow, retarded, or reluctant learners, and for nonachievers; for disadvantaged, and culturally deprived. The various needs of these several groups are met through multileveled stories and accompanying exercises whose content is realistic and adult.

- A. Goldberg, Herman R., and Brumber, Winifred T., The Job Ahead, Science Research Associates, Inc., Chicago, Ill., 1963

Set of 5 Student Exercise workbooks to go with text

- B. Finding Your Job Series, Finney Company, 3350 Gorham Ave., Minneapolis, Minn. 55426, 1969

The 360 job titles are designed to help show learners, underachievers and students in special classes find suitable jobs. The materials are presented in a manner easy to understand for the purpose of helping these young people prepare for specific jobs within their capabilities.

- C. Finding Your Job Workbook---

is designed for use in special classes and in conjunction with the Finding Your Job series to help students with limited comprehension to become productive members of their community.

- D. The Help Yourself To A Job, Parts I, II, III---

provide a study in employment education for the teenage educable retardate, specific lessons in all areas of employer-employee and employee-employee relationships, and information for various kinds of jobs, presented in many interesting ways.

Supplementary References:

- E. SRA Guidance Services:

Your Personality & Your Job----Daniel Sinick
Choosing Your Career----J. Anthony Humphreys
How To Get The Job----Mitchell Dreese
Enjoying Leisure Time----William C. Menninger, M.D.
What Employers Want----James C. Worthy
Growing Up Socially----Ellis Weitzman
Discovering Your Real Interest----Blanche B. Paulson
You and Your Health----J. Roswell Gallagher M.D.
Getting Along With Others----Helen Shacter
Exploring Your Personality----William E. Henry

Baby Sitter's Handbook---Judy Flander
Making and Keeping Friends---William C. Menninger M.D.
Where Are Your Manners---Barbara Valentine Hertz
Do Your Dreams Match Your Talents?---Vance Packard
How To Increase Your Self-Confidence---C. Gilbert Wrenn
Study Your Way Through School---C. d'A Gerken
What Is Honesty?---Thaddeus B. Clark

Other publications suggested for additional information

Ellenson, Ann, Human Relations, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1973.

Kimbrell, Grady and Vineyard, Ben S. Succeeding In The World of Work, McKnight & McKnight Publishing Company, Bloomington, Illinois, 1970.

Missouri State Department of Education, Special Education Guide for Teachers, Jefferson City, Missouri.

U.S. Department of Labor, Occupational Outlook Handbook, U.S. Government Printing Office, Washington, D. C., 1972-73.

Whitcomb, Helen and Lang, Rosalind, CHARM, The Career Girl's Guide to Business and Personal Success, Gregg Division McGraw-Hill Book Company, New York, New York, 1971.

Wilhelms, Fred T. and Heimerl, Ramon P. Consumer Economics, Greg Publishing Division McGraw-Hill Book Company, Inc., New York, New York, 1959.

World Book Encyclopedia, Field Enterprises Educational Corporation, Chicago, Illinois, 1973.

STUDENT ACTIVITIES

These activities were developed to ensure that the objectives of each lesson are met not only through story content, but also through repetition in other interesting situations.

Not all of these activities will be carried out. Some will be required and some the student may elect to do. The following are some activities that may be used in this course:

Realistic planning and budgeting of money.

Packing, wrapping and tying boxes.

Collecting menus from local eating places.

Projects in nutrition dealing with balanced meals.

Investigate the reasons for taking a blood test and a chest X-ray, the procedure involved, and the results.

Simple toys and games can be made in class to be given to children in hospitals.

Make charts related to suggestions for the job interview.

Students can act out job interviews, using a tape recorder.

Make a career notebook, including a listing of jobs for which one might qualify, requirements for these jobs, and responsibilities of the job seeker.

Write a letter of application.

Show bread mold and other types of food spoilage, stressing refrigeration and other means of preventing decay or deterioration.

Write to local companies for information on their retirement plans and other company benefits.

Compute monetary value of fringe benefits in addition to actual wage.

Make a chart of fringe benefits in various places of employment.

Study newspaper ads and compare prices in different stores.

Trace the route of various food items from producer to consumer for a better realization of how many jobs are involved in the food industry.

Make a study of the different types of vehicles used in the transportation of food items.

STUDENT ACTIVITIES Con't.

Obtain items and stock a first-aid kit. Explain use of each item.

Categorize a variety of jobs by level of skill and degree of training and experience. This will stress the necessity of employee training and skills.

List reasons for job success or failure. Get literature from employment office.

Draw road or street maps of the neighborhood or community.

Collect, display, read and discuss clothing tags.

Solve problems about yardage, width of material, cost of material.

Demonstrate and practice good posture.

Study and use height-weight chart.

Compute cost of lunches and bus transportation to and from work or school for one week.

Choose, write and mail appropriate cards to friends on special occasions.

Experiment: Have three similar plants. Give one no fertilizer, one the right amount of fertilizer, and one too much fertilizer. Write up the results.

Find the differences in cost between salvaged materials and new materials.

Draw the classroom to scale.

Copy the chart of meat cuts in notebooks.

Solve problems based on the time and money a person loses by being late to work, average time lost daily over periods of a week and a month.

Make up a physical fitness schedule and a daily fifteen-minute exercise schedule.

Look up nearby places easily reached by car--trace route to one on an auto map. Learn to read map legends.

STUDENT ACTIVITIES Con't.

Read a booklet on social security and write a report.

Use a tape recorder to check voice and speech. Conduct a mock interview.

Write a report on local regulations governing disposal of rubbish by property owners.

Write a short essay on the topic "The person who has most influenced my life."

Put on a hobby show.

Write a letter of sympathy.

INSTRUCTIONAL AIDS

There are many materials that can be used in presenting the many and various concepts of this course. Some of these are listed below. They include:

1. Films
2. Filmstrips
3. Pamphlets
4. Magazines
5. Newspapers

FILMS

Cash On The Barrel Head, 16mm, b&w, 20 min., Normandy High, free.
Eye of The Beholder, The, 16mm, b&w, 30 min, Normandy High, free.
Listen, Please, 16mm, b&w, 20 min, Normandy High, free.
Pacesetter in Aisle No. 3, 16mm, color, 15½ min., General Mills, free.
Person to Person Communication, 16mm, color, 14 min., Normandy High, free.
Personal Qualities For a Job, Coronet Film.

FILMSTRIPS

World of Work Series, Cassette Sound Filmstrip, McGraw-Hill Films.

PAMPHLETS

U.S. Department of Labor, Job Guide for Young Workers, U.S. Gov't. Printing Office, Washington 25, D.C. 1963.
State Employment Service, Choosing Your Occupation.
State Employment Service, How to Get And Hold The Right Job.
State Employment Service, How To "Sell Yourself" To An Employer.
U.S. Department of Labor, How To Prepare Yourself For Job Interviews.

MAGAZINES

Better Homes & Gardens, Meredith Publishing Company, \$5 per year
Reader's Digest, The Reader's Digest Assoc., Inc., \$4 per year

NEWSPAPERS

Local newspaper
Kansas City Star

END OF YEAR RATING SHEET

Name: _____

	Good	Fair	Needs More work
1. Personality Questions			
2. Appearance Check List			
3. Filling Out Work Application			
4. Interview			
5. Paper-pencil "factor" test			
6. Budget Sheet			
7. Money Change Sheet			
8. Paper-pencil "leaving job" test			
9. Spelling List			
10. Data Sheet			
11. "Help-Wanted" Ad Sheet			
12. Work-Time Record Sheet			
13. Has a job			

MEASURING ACHIEVEMENT

Since the student receives a report card the same as other students, it is thought best to give a grade which has evaluatory meaning to the student and allows him to maintain his self-respect.

Students should be graded in terms of individual capabilities. In special education courses and vocational placement, it is possible for them to receive the top mark.

Students will be graded on the following measures:

1. Paper test
2. Class participation
3. Employer's rating sheets
4. Success on the job(s)
5. Personal growth qualities
 - a. dependability
 - b. consideration for others
 - c. purposeful work habits
 - d. self-control

FIELD TRIPS AND GUEST SPEAKERS

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GUEST SPEAKER AND FIELD TRIP SITE LISTING

NAME	ADDRESS	CONTACT REPRESENTATIVE	TELEPHONE	FIELD TRIP	GROUP SIZE	GRADE LEVEL	GUEST SPEAKER
Adco	900 W. Main Sedalia, MO	Dr. Alexander	826-3300	Yes	1-6	9-12	No
Allstate Insurance Co.	4800 E. 63rd Kansas City, MO	Mr. John Irish	333-6800	Yes	20	11-16	No
American Electrical Industries	Highway 50 Sedalia, MO	Mr. Russ Woodyard	827-1712	Yes	30	6-12	Yes
Archias Floral Co.	4th & Park Sedalia, MO	Mr. Don King	826-4000	Yes	20	K-12	Yes
Artist	203 N. Jefferson Sedalia, MO	Ms. Thelma Hansen	886-8464	No	0	7-12	Yes
Attorney at Law	Cole Camp, MO	Mr. Pete Stelling	668-4858	No	0	0	Yes
Attorney at Law	Warsaw, MO	Mr. Edwin F. Brady	438-5116	Yes	4-5	9-12	Yes
Attorney at Law	Farmer's Savings Bank Marshall, MO	Mr. Larry McClure	886-6986	No	0	7-12	Yes
Ault's Skelly Station	1570 S. Kentucky Marshall, MO	Mr. Bob Ault	886-6792	No	0	7-12	No
B & E Market	1701 S. Kentucky Marshall, MO	Mr. Jim Dick	886-2188	Yes	30	3-12	No
Banges	78 S. Jefferson Marshall, MO	Ms. Dolly Kiser	886-3716	No	0	7-12	Yes
Banquet Foods	253 W. Marion St. Marshall, MO	Mr. Caton Martin	886-3301	Yes	20	4-9	Possibly
Benton County Enterprise	Warsaw, MO	Mr. Mahlon White	438-6312	Yes	4-5	9-12	Possibly
Benton County R-I School	Cole Camp, MO	Mr. Vergil Oglevie	668-4427	No	0	0	Possibly

NAME	ADDRESS	CONTACT REPRESENTATIVE	TELEPHONE	FIELD TRIP	GROUP SIZE	GRADE LEVEL	GUEST SPEAKER
Benton County R-IX	Warsaw, MO	Dr. John Boise	438-7351	No	0	8-10	Yes
Benton County Sheriff's Dept.	Warsaw, MO	Mr. Robert Breshears	438-5252	Yes	5-6	9-10	Yes
Binghams Super Saver	La Monte, MO	Mrs. Bingham	347-5426	No	0	0	No
Body Shop	Cole Camp, MO	Mr. David Luetjen	668-3155	Yes	2-4	9-10	No
Bohling Grocery	Cole Camp, MO	Mr. E. G. Bohling		No	0	0	Possibly
Boonslick Regional Library	Sixth & Lamine Sedalia, MO	Ms. V. Corley	826-6195	Yes	20	K-9	Possibly
Borchers & Heimsoth	Cole Camp, MO	Mr. Ervin Borchers	668-4923	No	0	0	No
Bothwell Hospital Physical Therapy	Sedalia, MO	Ms. Nevin Almquist	826-8833	Yes	7-15	7-12	Yes
Bothwell Hospital	Sedalia, MO	Ms. Marie Nicholson	826-8833	Yes	20	12-16	No
Breech Academy - TWA	6300 Lamar Avenue Mission, KS	Ms. Mickey Holiday	842-4000	Yes	20	11-16	Yes
Brick Mason	RFD 3 Warsaw, MO	Mr. Lee Slavens	438-5360	No	0	0	Possibly
Broadway Car Wash	310 W. Broadway Sedalia, MO	Mr. Dale Arms	826-0375	Yes	25-30	1-12	No
Broadway Lanes, Inc.	2119 W. Broadway Sedalia, MO	Ms. Edith Simons	827-0404	Yes	Large	K-14	Possibly
Brown, McCloskey, Buckley	309 E. 5th St. Sedalia, MO	Ms. Mabel Glenn	826-7373	No	0	0	No
Business Mens Assurance	BMS Building Kansas City, MO	Ms. Almeta Wilcher	753-8000	Yes	20	11-16	No

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C-B Shop	Cole Camp, MO	Mr. Dave Wordeman		Yes	4	9-12	No
C. W. Flower	219 S. Ohio Sedalia, MO	Mrs. Austin	826-3200	Yes	15-20	11-16	Yes
Cablevision, Inc.	600 S. Osage Sedalia, MO	Mr. Lynn Harrison	826-0933	Yes	20	5-9	Possibly
Cargill Incorporated	Marshall, MO	Mr. Jack Hartwick	886-7473	Yes	20-25	9	Possibly
Cargill Nutrena Feeds	Smithton, MO	Mr. Gene Hudiburg	343-5319	Yes	10	7-12	Yes
Cash U. S. Super	Cole Camp, MO	Mr. Jim Cash	668-3700	Possibly	0	0	No
City Offices	214 N. Lafayette Marshall, MO	Mr. Ron Collins	886-2226	No	0	7-12	Yes
Classic Studio	6th & Kentucky Sedalia, MO	Mr. Ed Brummett	826-8888	Yes	5-10	7-12	Yes
Clay Mead Furniture	Highway 65 Marshall, MO	Ms. Kay Perkins	886-5354	No	0	7-12	Yes
Coffman's Marina	Highway 65 South Sedalia, MO	Mr. John Smith	827-3692	Yes	1-6	9-12	No
Commerce Bank	10th & Walnut Kansas City, MO	Mr. John Wells	234-2000	Yes	20	11-16	No
Consumers Supermarket	Hancock & Broadway Sedalia, MO	Mr. Bill Smillie	827-3190	Yes	15	K-12	Yes
Courts Lawn and Garden	Marshall, MO	Mr. Delford Thompson	886-5000	No	0	7-12	Yes
Creasy's Insurance Agency	Warsaw, MO	Mr. Gordon Creasy	438-5621	No	0	0	Yes
Dala's Boutique	Tipton, MO	Ms. Dala Yantz	433-2626	No	0	0	Yes
Day Care	321 W. Second Sedalia, MO	Mrs. Zimmerschied	826-5040	Yes	1 a day	0	Yes

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DeKalb Ag. Research	Marshall, MO	Mr. Don Wert	886-7438	Yes	10-40	5-9	Possibly
DeLong Dry Goods	Warsaw, MO	Mrs. DeLong	438-5307	No	0	0	Possibly
Deluxe Cafe	Cole Camp, MO	Ms. Marie Musser	668-4521	Yes	2-4	9-10	Yes
Democrat News	Marshall, MO	Mr. Jerry Arnett	886-2233	Yes	25	7-9	Yes
Dentist	Warsaw, MO	Dr. Shepardson	438-5421	No	0	0	Possibly
Dentist	1810 W. 11th Sedalia, MO	Dr. Robert Vit	826-5445	No	0	K-12	No
Dentist	Cole Camp, MO	Dr. D. V. Reimsnitter	668-3312	Yes	4-6	9-12	Possibly
Doctor of Osteopathy	1701 S. Lafayette Sedalia, MO	Dr. Joe Bennett	826-6633	Yes	5 at a time, 40 maximum	7-12	Yes
Don's Dive Shop	3312 S. Highway 65 Sedalia, MO	Mr. Don Kabler	826-4681	No	0	8-12	Yes
Don's Welding	Highway 65 South Sedalia, MO	Mr. Don Carr	826-7310	Yes	1-10	8-12	No
Duke Manufacturing	Main & Duke Road Sedalia, MO	Mr. Ivan Stuart	827-2661	Yes	10	4-12	No
Durham Chevrolet	Warsaw, MO	Mr. Floyd Durham	438-5133	Yes	10	8-12	Yes
Eckhoff Clothing	Cole Camp, MO	Mr. Raymond Eckhoff	668-4707	Yes	4	9-12	No
Essers	18 S. Jefferson Marshall, MO	Mr. David Esser	886-2107	No	0	7-12	Yes
Estes' 66 Station	Warsaw, MO	Mr. Gary Estes	438-6022	No	0	0	Possibly
Farmer's Bank of Lincoln	Lincoln, MO	Mr. Karl Kroenke	547-3311	Yes	4-5	9-12	Possibly
Farmer's Insurance	1806 W. 11th Sedalia, MO	Mr. Newby	827-0122	Yes	1-5	9-12	Possibly

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Fire Station	211 S. Kentucky Sedalia, MO	Mr. Jabas	826-8044	Yes	1-15	0	Possibly
Flat Creek Vet. Hosp.	1701 W. Main Sedalia, MO	Dr. Peacock	827-2057	Yes	10-15	K-12	Yes
Gambles	2 S. Jefferson Marshall, MO	Mr. Norvelle Brown	886-6823	No	0	7-12	Yes
Bill Greer Body Shop	Main Street Sedalia, MO	Mr. Orval Burd	827-2162	Yes	5	10-12	No
Hallmark	25th & McGee Kansas City, MO	Ms. Rose A. Lightle	274-4667	Yes	20	11-16	Yes
Harris & Reid	Farmer's Savings Bank Marshall, MO	Mr. Mike Reid	886-5544	No	0	7-12	Yes
Heinzler Bros. Welding	Marshall, MO	Mr. Frank Heinzler	886-7775	Yes	20-25	7-9	No
Holiday Inn	32nd & Limit Sedalia, MO	Mr. Jim Grieshaber	826-6100	Yes	40-50	8-9	Possibly
Home Lumber	207 E. North Marshall, MO	Mr. Roland Wood	886-3342	No	0	7-12	Yes
Horse Racing	P.O. Box 951 Sedalia, MO	Mr. Anderson	826-7114	Yes	1-10	9-12	Possibly
Howard Construction	1509 N. Ohio Sedalia, MO	Mr. Olen Howard	826-5750	Yes	5-15	8-12	No
Hurt's Pharmacy	504 W. 16th Sedalia, MO	Mr. Hurtt	826-2872	Yes	1-10	8-12	Possibly
IBEW Local 814 Credit Union	2111 W. Broadway Sedalia, MO	Ms. June Kuhlman	826-0814	Yes	6 at a time	8-12	Possibly
IGA	2402 W. Broadway Sedalia, MO	Mr. Ralph Huff	827-1452	Yes	25	K-12	Yes

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Industrial Loan & Investment	120 W. Fifth Sedalia, MO	Mr. Firman Boul	826-4800	Yes	25	7-12	Yes
J & J's	1421 S. Limit Sedalia, MO	Mr. Jack Smith	827-2485	No	0	0	Possibly
Jack Coutts' Running Quarter Horses	Mo. State Fair Grounds Sedalia, MO	Ms. Tina Brown	826-1135	Yes	5-10	K-12	No
Jim's Garden Center	1000 W. Main Sedalia, MO	Mr. James L. Foster	826-4411	Yes	15	4-9	Possibly
Bob Johnson TV & Appliance	2907 W. Broadway Sedalia, MO	Mr. Ray Thompson Mr. Paul Johnson	827-2326	Yes	15-20	7-12	Yes
KDRO Radio	West Highway 50 Sedalia, MO	Mr. Herb Brandes	826-5005	Yes	15	K-12	Possibly
Keeharts	Marshall, MO	Ms. Alice Alexander	886-5611	No	0	7-12	Yes
Kim Originals	2500 E. Broadway Sedalia, MO	Mr. Bill Cline	826-2500	Yes	15	K-12	Possibly
Kings Court	Marshall, MO	Mr. Bill Coman	886-5444	Yes	15	7-12	No
KMMO-KMFL	Highway 65 North Marshall, MO	Mr. Harold Douglas Mr. Jim Athon Mr. Jack Abdon	886-7422	No	0	7-12	Yes
KMOS TV Station	2100 W. Broadway Sedalia, MO	Mr. Stuart Gressley	826-1651	Yes	15	K-12	Yes
KSIS Radio	North 65 Highway Sedalia, MO	Mr. Carl Yates	826-1050	Yes	10	K-14	Yes
Lacuma Builders, Inc.	2800 W. Main Sedalia, MO	Mr. Bob Cook	826-0522	No	0	0	Yes

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Lamm, Barnett, Crawford, Barnes, Fritz Law Firm	118 W. Fifth Sedalia, MO	Mr. Donald Barnes	826-5428	No	0	11-12	Yes
Lee's Archery Manufacturing	Route 2 Sedalia, MO	Mr. LeRoy Young	826-6762	Yes	20	7-16	No
Lee's Studio	20 S. Jefferson Marshall, MO	Mr. Lee Beardon	886-7313	No	0	7-12	Yes
Lifeguard	2401 W. Second Sedalia, MO	Ms. Diane Cordry	826-7719	No	1-15	8-10	Yes
Lincoln New Era Newspaper	Lincoln, MO	Mr. George Williams	547-3800	Yes	Inquire	Inquire	Possibly
Locker Plant	Hughesville, MO	Mr. Bill Wheeler	826-8630	Yes	10-15	1-12	Yes
Macy's	1034 Main Kansas City, MO	Mrs. Cullen	221-3737	Yes	20	11-16	No
Magistrate Judge--Pettis County	901 S. Vermont Sedalia, MO	Ms. Hazel Palmer	826-8816	No	0	11-12	Yes
Marshall Chamber of Commerce	214 N. Lafayette Marshall, MO	Mr. Leo Hayob	886-7464	No	0	7-12	Yes
Marshall Floral & Greenhouse	160 W. Summit Marshall, MO	Ms. Juanita Dametz	886-7177	Yes	20	7-9	Yes
Marshall Police	Arrow Street Marshall, MO	Mr. Gerald Stone	886-7411	Yes	15-20	1-12	Yes
Marshall Public Schools	565 S. Odell Marshall, MO	Dr. John Payne	886-2244	Yes	20-30	7-12	Yes
Martin Lumber	Hughesville, MO	Mr. Con Scott	826-7556	No	0	0	No
Mattingly's Variety Store	218 S. Ohio Sedalia, MO	Mr. Bill Stratton	826-5270	Yes	20	7-12	Possibly

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Merle Norman Cosmetics	120 S. Ohio Sedalia, MO	Ms. Sandra Boul	826-6430	No	0	11-16	Yes
MFA Elevator	Cole Camp, MO	Mr. Ed Schnakenberg	668-3231	Yes	6-8	9-10	Possibly
MFA Grocery	Lincoln, MO	Mr. Joe McKnight	547-3621	No	0	0	Yes
MFA Implement	Lincoln, MO	Mr. Clarence Frisch	547-3318	Yes	4	9-12	No
MFA Insurance	1817 W. Broadway Columbia, MO	Mr. Vic Ohman	445-8441	Yes	20	11-16	No
Missouri Division of E. S.	215 E. Fifth Sedalia, MO	Mr. Bill Giles	826-8184	Yes	25	11-12	Yes
Missouri Pacific Railroad	210 N. 13th St. St. Louis, MO	Mr. D. M. Tutke	314-2944	Yes	Arr.	7-12	Possibly
Missouri State Bank	917 S. Limit Sedalia, MO	Mr. William Claycomb	826-1213	Yes	20-25	4-12	Possibly
Missouri State Fair	Box 111 Sedalia, MO	Ms. Myrna Ragar	826-0570	Yes	30	3-7	Possibly
Missouri Valley College	Marshall, MO	Mr. Ed Leslie	886-6924	No	0	9-12	Yes
Model Cleaners	Warsaw, MO	Mr. Richard Kingma	438-5831	Yes	20	K-12	No
Ollison's Garage	2809 E. 12th Sedalia, MO	Mr. Keith Ollison	826-4077	No	0	0	Yes
Otten Truckline	Cole Camp, MO	Mr. Pete Otten	668-3112	No	0	0	Yes
Patricia Stephens Modeling Finishing School	4638 Nichols Parkway Kansas City, MO	Ms. Sue Peterson	531-5866	Yes	60	7-12	Yes
Pepsi-Cola Bottling Co.	Sedalia, MO	Mr. W. C. Ream	826-8144	Yes	30	4-9	Possibly

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Pettis County Ambulance	626 E. Fifth Sedalia, MO	Mr. Joe Wasson	826-5316	Yes	10-15	6-12	Possibly
Phyllis's Beauty Shop	Cole Camp, MO	Ms. Phyllis Templeton	668-3750	Yes	6	9-12	No
Pittsburgh Corning	16th & Missouri Pacific Spur Sedalia, MO	Ms. Rita Kenney	826-4660	No	0	0	No
Post Office	205 N. Lafayette Marshall, MO	Mr. Weislocker	886-6200	Yes	25	7-9	No
Post Office	405 E. Fifth Sedalia, MO	Mr. Roy Hinton	826-8887	Yes	25-30	4-9	Possibly
Quality Body Shop	501 N. Park Sedalia, MO	Mr. Bill Utz	826-2126	Yes	1-10	8-12	No
Rainbow Radio & TV	Lincoln, MO	Mr. Rainbow	547-3317	Yes	4	9-12	No
Ramada Inn	3501 W. Broadway Sedalia, MO	Mr. Darrell Olsen	826-8400	Yes	15	5-12	Possibly
Reinhart Fajen, Inc.	Warsaw, MO	Ms. Eloise Atkins	438-5111	Yes	8-10	9-12	Possibly
Rest Haven Retirement Home	1800 S. Ingram Sedalia, MO		827-0845	Yes	10	1-9	Possibly
Retail Bakery	Sixth & Ohio Sedalia, MO	Mr. Mallory	826-6920	Yes	20	K-9	Possibly
Rick's Body Shop	R. R. #2 Sedalia, MO	Mr. Rick Geer	826-1157	Yes	25-30	7-12	No
Rival Manufacturing Co.	16th & Lamine Sedalia, MO	Mr. Jim Houchen	826-6600	Yes	15	4-12	Yes

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Rival Manufacturing Co.	Miller's Park Plaza Sedalia, MO	Ms. Nyra Price	827-3860	No	0	0	Yes
Rose & Buckner	72 N. Jefferson Marshall, MO	Mr. Bob Rose	886-2002	Yes	15-20	7-12	Yes
Russell Brothers	Marshall, MO	Mr. Casey Kotowicz	886-7340	No	0	7-12	Yes
Russell Brothers	214 S. Ohio Sedalia, MO	Mr. Bob Johnson	826-5154	Yes	1-10	8-12	No
Scott's Jewelry	East Highway 7 Marshall, MO	Mr. Scott	438-5700	No	0	0	Possibly
Sears	110 W. Third Sedalia, MO	Mr. Finis Galloway	826-6500	Yes	10	7-12	Yes
Sedalia Computer Service	210 E. 7th Sedalia, MO	Mr. Larry McRoy	827-1990	Yes	10-15	9-12	Yes
Sedalia Democrat-Capital	700 S. Massachusetts Sedalia, MO	Mr. Don Keller	826-1000	Yes	15	K-16	No
Sedalia Implement Co.	2205 S. Limit Sedalia, MO	Mr. John Joy	826-0466	Yes	15-25	7-12	Yes
Sedalia Memorial Airport	East Highway 50 Sedalia, MO	Mr. James Addas	826-9796	Yes	Small	K-14	Possibly
Sedalia Police Department	3rd & Osage Sedalia, MO	Mr. Bill Miller	826-0214	Yes	10-15	1-14	Yes
Sedalia Water Department	111 W. Fourth Sedalia, MO	Mr. C. H. Taylor	826-1234	Yes	15	6-9	Possibly
Sheriff's Department	Warsaw, MO	Mr. Bob Breshears	438-5252	No	0	0	No

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Paul Shinn Oil Company	RFD 3 Warsaw, MO	Mr. Paul Shinn	438-5013	No	0	0	No	
Sho-Me Stables	State Fair Grounds Sedalia, MO	Ms. Elaine Knight	827-2243	Yes	5-10	K-12	No	
Sound Shop	1716 W. Ninth Sedalia, MO	Mr. Al Reese	827-2223	Yes	20	K-12	Yes	
Southwestern Bell Telephone	220 E. 5th St. Sedalia, MO	Mr. Bob Johnson	826-9800	Yes	25	K-12	Yes	
Sowers' Horses	Callis Stables Sedalia, MO	Ms. Susan Sowers	827-1778	Yes	5-10	8-12	Yes	
Stan's TV	P.O. Box 856, Rt. 2 Warsaw, MO	Mr. Stan Johnson	438-6859	No	1	9-10	Yes	
State Fair Community College	1900 Clarendon Road Sedalia, MO	Mr. Fred Davis	826-7100	Yes	5-10	9-12	Yes	
State Fair Riding Academy	Route 3 Sedalia, MO	Ms. Faith Lovell	826-9767	Yes	1-5	8-12	No	
T & O Phosphate	Hughesville, MO	Mr. Larry Owen	826-1813	No	0	0	No	
The Craft Shop	318 S. Ohio Sedalia, MO	Mrs. Boatman	827-3041	Yes	15-20	5-12	Possibly	
The Dog House	116 W. 16th Sedalia, MO	Mr. Antoine	827-1941	Yes	1-10	8-12	No	
Third National Bank	301 S. Ohio Sedalia, MO	Mr. Bob McDonald	826-0611	Yes	30-40	6-9	Possibly	
Town and Country Shoes	201 N. Missouri Sedalia, MO	Mr. Charles Rayl Mr. Ken Grott	826-4490	Yes	Small	K-12	Yes	

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Tullis Hall Dairy Co.	541 E. Fifth Sedalia, MO	Mr. Funnell	826-3030	Yes	10	3-12	No
Tygart & Arth Body Shop	207 E. Belle Marshall, MO	Mr. Ray Arth	886-3033	Yes	25	7-8	Yes
Unitog	Warsaw, MO	Mr. Osborne McMillen	438-5117	Yes	Arr.	7-12	No
Verl's Amoco Service	1801 W. Broadway Sedalia, MO	Mr. Verl Schnepf	827-0040	Yes	1-10	8-12	No
Veterinary	Cole Camp, MO	Dr. Taylor	668-4523	No	0	0	No
Viebrocks Welding	Cole Camp, MO	Mr. Harold Viebrock	668-3233	Yes			No
Vogue Styles	22 Jefferson Marshall, MO	Mrs. Howell	886-6161	No	0	7-12	Yes
W-K Chevrolet Garage	Cole Camp, MO	Mr. Vern Dean	668-4421	Yes	4-6	9-12	Possibly
Walker Publishing Co.	2016 W. Main Sedalia, MO	Mr. Mark Kitch	826-8200	Yes	15	5-12	Yes
Warren Grocery	Green Ridge, MO	Mr. Warren	527-3317	No	0	0	No
Warsaw Auto Supply	Warsaw, MO	Mr. Stan Intelman	438-7321	Yes	Small	1-14	No
Warsaw Sewing Center	Warsaw, MO	Mr. Jerome Kelly Mr. Donald Prunty	438-6919	Yes	6	8-12	Possibly
Warsaw Veterinary Clinic	Warsaw, MO	Dr. N. V. Roff	438-7333	Yes	8	8-12	Yes
WESCEMO, Inc.	651 E. 14th Sedalia, MO	Mr. Steve Laslo	827-3760	No	0	8-12	Yes
Western Auto	Jefferson & Morgan Marshall, MO	Mr. Gerald Leach	886-6813	No	0	7-12	No
Wilken Music	Thompson Hills Sedalia, MO	Mr. Wilken	826-9356	Yes	10	4-12	Yes

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Williams Press	Cole Camp, MO	Mr. George Williams	668-4418 547-3911	Yes	4-6	9-12	Possibly
Wilson's Company, Inc.	Box 340 Marshall, MO	Mr. Don Nutten	886-5522	Possibly	12	7-12	Possibly
Wood & Huston Bank	27 North Street Marshall, MO	Mr. Mitchell	886-5575	Yes	25	7-9	Yes
Yeager's Cycle Sales	3001 S. Limit Sedalia, MO	Mr. Rick Yeager	826-2925	Yes	1-15	8-12	No
Yost Chevrolet	Odell Avenue Marshall, MO	Mr. Ken Yost	886-3348	No	0	7-12	Yes